

EMPLOYEE MANUAL

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PRESIDENT'S MESSAGE

Welcome to Vexillum Inc. (hereafter referred to as EZ Electric). I know that you have a choice when choosing employers and we are excited that you chose EZ Electric. I hope that you will find this document helpful in getting to know our company and it's policies. Of course, you should feel free to bring your suggestions, questions, and comments to our attention.

The pride we have in our company and in the service we provide to our customers is the reason we have experienced success in the past. I am sure you will feel the same pride as you meet the challenges of your job with EZ Electric.

Mutual respect for one another is a basic ingredient as we work together to reach our common goals. The ease and freedom with which we communicate is also very important. We hope this document will help with this communication.

Only with your contributions and effort, can we expect to meet our common goals and continue the growth of our company. Again, thank you for choosing EZ Electric as your employer and I look forward to an equally beneficial relationship.

Scott a. Zachman, President

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YOUR EMPLOYMENT WITH EZ ELECTRIC

This Employee Manual is provided to answer common questions posed by our employees. It is a summary of EZ Electric's personnel policies, benefits, and work rules and how they will affect you. Please read it carefully and learn its contents. If you have any questions about our policies and practices that are not answered by this handbook, please feel free to ask your Supervisor or the Human Resources Department. Please understand that the policies and practices set out in this manual are not a contract and are not intended to imply a contractual relationship.

This handbook replaces all earlier handbooks, and takes precedence over all memoranda and oral descriptions of the terms and conditions of employment. To avoid confusion, please discard any old manuals and handbooks you may have.

EQUAL EMPLOYMENT OPPORTUNITY IS OUR POLICY

It is the long established policy of EZ Electric to be an Equal Employment Opportunity Employer. Employment decisions are based on merit, qualifications, abilities and business needs, and not on race, ancestry, sexual orientation, color, religion, sex, national origin, age, physical or mental disability, marital status, or any other characteristic protected by law. This policy applies to all areas of employment, including recruitment, hiring, training and development, promotion, transfer, termination, layoff, compensation benefits, social and recreational programs, and all other conditions and privileges of employment in accordance with applicable federal, state and local laws.

EZ Electric complies with the provisions of the Americans with Disabilities Act (ADA). EZ Electric will not discriminate against any qualified employee or job applicant with respect to any terms, privileges, or conditions of employment because of a person's physical or mental disability or a person's diseases such as AIDS or AIDS-related virus, Sicle-Cell Trait, cancer, heart disease, or other life-threatening illnesses or diseases.

EZ Electric will make reasonable accommodations as necessary for all employees or applicants with disabilities, provided that the individual is qualified to safely perform the essential duties of their job and provided that the accommodations do not impose an undue hardship on the Company.

You are free to terminate your employment with EZ Electric at any time, with or without a reason, and EZ Electric has the right to terminate your employment at any time, with or without a reason. Although EZ Electric may choose to terminate employment for cause, cause is not required. This is called "at will" employment.

No one, other than the President of the Company, can enter into an agreement for employment for a specified period of time, or make any agreement or representations contrary to this policy. Further, any such agreement must be in writing, and signed by the President of the Company. EZ Electric's policy of "at will" employment may be changed only in writing by the President of the Company.

Apart from the policy of "at-will" employment and those policies required by law, EZ Electric may change its policies or practices at any time without prior notice.

NEW HIRES

All offers of employment are contingent on verification of your right to work in the United States. On your first day of work, you will be asked to provide original documents verifying your right to work and to sign a verification form required by Federal law. If you, at any time, cannot verify your right to work in the United States, EZ Electric may be obligated to terminate your employment.

New employees are Introductory Employees for the first six (6) months of full time employment. During this period you will have an opportunity to learn your new position (job) and see whether you enjoy your employment at EZ Electric. EZ Electric will use this period to see if you are able to meet Company expectations.

During your introductory period, you will not earn certain benefits such as insurance, personal holidays (if applicable), etc.

Successful completion of your introductory period is not a guarantee of continued employment.

Introductory periods may be extended for business reasons, or because of permitted time off taken by the employee.

As explained earlier, during your introductory period, and during the entire course of your employment, you will be an "at will employee".

While Supervisors, Managers, and Officers have certain hiring authority, no employee of EZ Electric has any authority to alter the "at-will" employment relationship.

EMPLOYMENT STATUS

There are four (4) types of Employees at the Company. Your employment status is one of the following:

- 1. Introductory Employees: Employees who have not yet completed the introductory period.
- 2. Regular Full-Time Employees: Employees who have completed their introductory period and work forty (40) or more hours per week.
- 3. Regular Part-Time Employees: Employees who have completed their introductory period and work less than forty (40) hours per week.
- 4. Temporary Employees: Employees who are hired for a specific period or specific project, and who are not considered regular or introductory employees.

WORK SCHEDULES

Your supervisor will inform you of your work schedule. You will be scheduled to work a five (5) day, forty (40) hour work week. Normal work days are Monday through Friday, unless indicated otherwise.

A designated work-week is considered to be from Monday 12:01 A.M. through the following Sunday at 12:00 midnight.

If you are a minor (under 18 years of age and not a high school graduate) it is against the law for you to work past 10:00 P.M. on a day preceding a school day. You may work until 12:30 A.M. of a non-school day. You may not work more than eight (8) hours in one day, or more than forty-eight (48) hours in one week.

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REST AND MEAL BREAKS

You must report to work in enough time to be ready to start your job at the beginning of your shift. You must arrange your personal schedule to comply with your work hours.

If you work three hours or more, you may take a ten (10) minute break. If you work five (5) hours or more, you may take a ten (10) minute break and a thirty (30) minute meal break, which should be scheduled with your supervisor. If you work seven (7) hours or more, you may take two (2) ten (10) minute breaks and a thirty (30) minute meal break. All ten (10) minute breaks must be taken on-site. Your supervisor will tell you where you can take your breaks.

OUTSIDE EMPLOYMENT

Your job with EZ Electric is your primary work responsibility. So that you can do your best, we ask that you do not work full-time for another employer while you are employed by EZ Electric. It is also requested that you do not do "side-work" on any projects that EZ Electric has worked on or has under contract. If side work is performed under these circumstances it may be cause for termination.

CONFIDENTIALITY

Our customers and vendors entrust EZ Electric with important information relating to their businesses. In safeguarding the information received, EZ Electric earns the respect and further trust of our customers and vendors. Your employment assumes an obligation to maintain confidentiality, even after you leave the company. If you are questioned by someone outside the company or your department, please refer the request to your manager or to the President. No one is permitted to remove or make copies of any company records, reports or documents without prior management approval. Because of its seriousness, disclosure of confidential information may lead to termination of employment.

PERSONNEL RECORDS

EZ Electric keeps a personnel file on each employee. The contents of your file, except for letters of reference, and certain other limited types of information, are open for your inspection at reasonable intervals at your request. You may make copies of certain papers in your file. You may also make copies of your payroll records. Call the Human Resources Department if you wish to see or copy your personnel file.

Should you have any personal changes such as address, phone number, marital status, or changes in the number of your dependents, you must inform the Human Resources Department in writing so our records and your benefits are kept up to date.

EZ Electric will keep your personnel records private. However, there are certain times when information may be given to persons outside the Company. These are:

- 1. In response to a subpoena, court order, or order of an administrative agency.
- 2. In a lawsuit, grievance, or arbitration in which you and EZ Electric are parties.
- 3. To administer employee benefit plans.
- 4. To a health care provider.

To a prospective employer or other person requesting a verification of your employment, but only (a) if you give us a written release allowing us to give out information, or (b) we are providing only the dates of your employment, your last or present job title, and the fact of your employment.

COMPANY TELEPHONES

Company telephones are provided primarily for business calls. Personal use of company phones should be limited. All telephone calls may be monitored. The Federal Electronic Communication Privacy Act and the Federal Ominous Crime Control and Safe Streets Act provide that one party of the conversation must consent to the intercepting or taping of the phone call or else electronic monitoring is not permitted unless judicial authorization or actual consent has been received. Therefore, as your employer we may monitor an employee's personal calls only as long as it takes to decide whether the call is business or personal.

ELECTRONIC MAIL & INTERNET USE

EZ Electric considers that E-Mail is for business purposes only and may be accessed by the Company at any time. Employees should be aware that the Company may make employment decisions based on the e-mail information in the system.

EZ Electric permits Internet use for work-related purposes only. When using the Internet do not use your company affiliation or purport to represent the company in any way unless authorized as part of your job duties.

With regard to both E-Mail and Internet usage all sex, age, race and other harassment is prohibited including sending racially or sexually offensive messages. The Company also forbids retrieving, downloading or sending pornography of any kind.

On-line communications are not private and all messages sent or retrieved over the Internet are company property. The Company may monitor on-line usage whenever there's a business reason for doing so, either on a periodic basis or any time for any reason. EZ Electric restricts unauthorized downloading of information onto your Company PC. Copying of software and other material off the Internet can violate copyright laws unless the vendor or author permits it.

EZ Electric considers the above stated policies on the use of Electronic Mail and Internet Use important. Violations of these policies will subject the employee to disciplinary action, up to and including termination.

SEPARATION PROCEDURES

When you leave EZ Electric, you must return all supplies, keys, tools, ladders and any other company property. The Federal Consolidated Omnibus Budget Reconciliation Act (COBRA) gives employees and their qualified dependents the opportunity to continue health insurance coverage under EZ Electric's health plan when a qualifying event would normally result in the loss of eligibility. Some common qualifying events are resignation, termination of employment, or employee's divorce or legal separation, and a dependent child no longer meeting eligibility requirements. EZ Electric provides each eligible employee with a written notice describing rights granted under COBRA when the employee becomes eligible for coverage under EZ Electric's health insurance plan. The notice contains important information about the employee's rights and obligations.

PAY PERIODS

Your paycheck will be distributed by the U.S Mail Service or direct deposit every two (2) weeks, on Monday. Your check will represent payment for all time worked for the previous pay period.

OVERTIME

Some Company employees are exempt from the overtime pay requirements of the law. Exempt Employees are paid on a salary basis and are in executive, administrative, or professional positions.

Nonexempt employees are paid either a salary or on an hourly basis, and receive overtime pay for time worked in excess of eight (8) hours per day or forty (40) hours per work week.

If you are nonexempt, you may be required to work overtime. Overtime is paid at one and a half times the regular hourly rate, if you work more than eight (8) hours per day or forty (40) hours per week; or for the first eight (8) hours, if you work the seventh day of a workweek. Nonexempt employees, who have to work more than twelve (12) hours in one day (a day begins at midnight), or more than eight (8) hours on the seventh working day in a work week (each week begins on Monday), are paid at two times their regular hourly rate for the excess hours. Days or hours, when you are paid but do not work, such as vacations and holidays, do not count as time worked for computing overtime.

Employees who wish to make up work time lost because of a personal obligation must submit a written signed request to the employer. If the hours are made up during the same week the time was lost, they may not be counted toward total hours worked for purposes of calculating overtime, except for hours in excess of 11 in one day or 40 in one workweek. Employees may request such an arrangement for up to four weeks in advance. Employers are not required to grant this request. However, the make-up work must be performed in the same week during which the time was lost. Employers may inform employees of this option, but they are prohibited from encouraging or otherwise soliciting employees to use it.

Overtime applies only to hours of actual work, not hours paid. The following periods, even if paid by an employer, are not included in determining when an employee is eligible for overtime payment: sick days, holidays, vacations.

Time spent in required medical examinations count as actual work. This applies to employees required to have medical examinations for class "A" drivers licenses.

Times spent in mandatory drug testing for class "A" drivers licenses are considered actual hours worked.

Time spent for attending voluntary job-related meetings, courses, and training programs outside normal working hours do not count as actual hours worked.

To work overtime, you must obtain permission from your supervisor. If you work overtime without permission, you may be disciplined, up to and possibly including discharge.

PAYROLL DEDUCTIONS

Federal and State laws require that the Company withhold taxes from your wages. These are: (1) Federal income tax; (2) California income tax; (3) Federal Insurance Contributions Act (FICA) (Social Security and Medicare); and (4) California State Disability Insurance (SDI). As of January 2004 employees have been contributing to Family Temporary Disability Insurance (FTDI) by an increase in the SDI rate.

If you want to change the number of your exemptions, or your marital status for Federal or State income tax withholding purposes, please call the Human Resources Department.

GARNISHMENT

If the Company receives an order to garnish your wages, the Company must comply with that order. A garnishment will reduce your take-home pay. Because of the time and money involved in processing garnishments, EZ Electric may elect to discipline or discharge an employee if garnishment requests for more than one debt are received.

TIMEKEEPING

Time cards must be filled out each day by the employee and approved by the jobsite foreman or manager. Managers and Foreman will prepare time cards for each pay period, and send them to the Accounting Department at the end of each week. It is important to keep accurate time cards and to turn them in when they are due. A time card is a legal document and must not be tampered with. Only employees are permitted to fill out their own time card. No employee is allowed to fill out a time card for another employee. Filling out the time card of a fellow employee or falsifying your own time card is dishonest and may lead to immediate discharge. Time card corrections must be approved by management and initialed by employee.

MEDICAL INSURANCE BENEFITS

After 6 months of full time employment, all full-time office employees and their cligible dependents may be covered by the Company's group medical plan. After 6 months of full time employment all Electrician/Field Employees and their dependents may be covered by the Company's group medical plan. Temporary, Introductory, and Part-Time employees are not eligible for medical benefits.

The company pays 70% of our "Core Plan" premiums for the employee coverage. The employee pays 30% of the insurance premium through a payroll deduction. Eligible dependents may be enrolled in company benefits, but 100% of the cost of their coverage is paid by the employee. Additional benefit plan types my be offered and any additional cost for these plan types is 100% the employees responsibility. Annual increases in premiums may occur and the increased cost of the premiums shall be adjusted in your payroll deduction at the standard percentage amount listed above. These benefits are described in detail in the Summary Plan Description furnished to you with your enrollment forms just prior to your completion of your eligibility requirements.

Special Health Insurance Enrollment Rights are also covered by HIPPA (Health Insurance Portability & Accountability Act). Events such as loss of other coverage, marriage, or birth/adoption of a child may make an employee eligible to enroll him (her) self and/or dependents in the Company's Group Health Plan.

In order to assist the Company with processing of your insurance benefits, you must notify the Human Resources Department if your address changes, if you get married or divorced, or if your dependents status changes. You should verify your eligibility for coverage before undergoing treatment in order to ensure that the treatment is covered. If you have questions about your medical benefits please call the Human Resources Department.

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VACATION, HOLIDAYS AND PERSONAL/SICK TIME

The Company provides salaried, full-time employees paid vacation, holidays and personal/sick time as follows:

SALARIED FULL-TIME EMPLOYEES

	Personal/Sick Days	Vacation Days	<u>Holidays</u>
After 1000 Hours of Compensation	*5 per year	None	**9 per year
After 2000 Hours of Compensation		5 per year	**9 per year
After 4000 Hours of Compensation		10 per year	**9 per year

^{*}Two days available in first quarter, plus one day per quarter thereafter.

Personal/Sick Days are accrued as stated above and are forfeited if not used during the calendar year. Terminated employees will be not be paid for unused Personal/Sick days. Vacation hours are accrued on a daily basis based on 2000 hours of compensation. Vacation hours/days must be used with in one year from date of accrual. Vacation hours not be accrued higher than your annual allotment.

Additional employees may be granted vacation when approved in writing from the Company President. The allotment of vacation days for these employees is based on the agreement approved by the Company President. The use, accrual, and forfeiture of vacation hours/days are bound by the same conditions stated above.

The company also provides Hourly, Full-time Employees that work at EZ Electric's office buildings (i.e., office and warehouse) paid vacation as follows. This does not include field and service electricians.

HOURLY FULL-TIME EMPLOYEES (as indicated in the previous paragraph)

<u> </u>	Personal/Sick Days	Vacation Days	<u>Holidays</u>
Office Staff and Warehouse Manager After 1000 hours of Compensation After 2000 Hours of Compensation After 4000 Hours of Compensation	None *5 per year *5 per year	None 5 per year 10 per year	**9 per year **9 per year **9 per year
Warehouse and Delivery Drivers After 2000 Hours of Compensation	None	5 per year	**9 per year

^{*}Two days available in first quarter, plus one day per quarter thereafter.

Vacation shall be compensated at the straight-time rate in effect on the date vacations commence. Pay in lieu of vacation shall be authorized only in the following situations:

^{**}Holidays: New Years Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving, Christmas Eve, Christmas Day.

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- 1. At the time of termination, employees will be paid for accrued vacation. Employees with less than 2000 hours of compensation are not eligible for vacation and will not be paid for vacation unless such payments are required by State or local law.
- 2. When an employee is granted military leave-of-absence for extended active duty and arrangements for taking the vacation accumulated cannot be made.
- 3. Pay in lieu of vacation has been approved by the Company President.

EVALUATIONS

Your supervisor will review your job performance with you at least once every 2000 hours of compensation, and whenever the Company is contemplating a pay raise. The purposes of these evaluations are:

- 1. To evaluate the strengths and weaknesses of your work and to communicate these to you.
- 2. To evaluate your success at achieving goals stated at your prior review.
- 3. To set future performance goals.

Your supervisor may prepare a written assessment of your job performance, which may be reviewed by the next higher level of management. After that, you will meet with your supervisor to discuss the evaluation. When you meet with your supervisor, you are encouraged to ask specific questions and to comment about your evaluation. You will be allowed to write your own comments on the evaluation form, and to sign it to show that you have read it and discussed it. You may request a copy of the completed form for your own records. A good performance evaluation does not guarantee a pay raise, nor is it a promise of continued employment.

Your Introductory Review will take place when you are close to 1000 hours of compensation from your date of hire. An additional review will take place when you are close to 2000 hours of compensation from your date of hire.

Performance reviews will be conducted close to 2000 hours of compensation from the date you started working, and every 2000 hour increments of compensation thereafter. Administrative employees receive 2000 hour reviews. Pay increases may be given at your 1000 hour review, 2000 hour review, and every 2000 hour increment thereafter.

ATTENDANCE AND ABSENCES

One of the most basic indicators of your performance is regular attendance. You must be on time. If you cannot come to work or will be more than a few minutes late, you must call your supervisor before 7:30a.m. We need to be informed each day that you intend to be off work. Please obtain the name and phone number of the person you must notify for future reference or call one of the phone numbers provided on page 19.

If you know in advance that you are going to be absent, you must schedule the absence with your supervisor at least one week in advance.

Excessive absences and failure to report absences on time will lead to discipline, up to and including discharge. Absences are excessive if they occur frequently, or if they show a pattern. Absences immediately before or after holidays and weekends are suspect.

If you are absent for two consecutive work days, without due notification to the office, it will be considered that you have abandoned your position and possible discharge may occur.

TARDINESS

You must arrive at your job location and be ready to start work at the beginning of your assigned schedule. Be ready to resume work on time after authorized rest and meal periods. Tardiness may lead to discipline, up to and including discharge.

We know that traffic or weather conditions may cause you to be late once in awhile. If this happens, notify your supervisor that you will be late and when you will be able to report for work. However, you are expected to plan for traffic and weather problems to allow for extra time to commute to work, if necessary.

Repeated or excessive tardiness will lead to disciplinary action, up to and including discharge. Tardiness is excessive if you are late frequently, or if you demonstrate a pattern of tardiness.

POLICIES GOVERNING UNPAID TIME OFF

APPROVED LEAVES OF ABSENCE

Sometimes employees may need to take a leave of absence from their employment. When an Introductory Employee takes a leave of absence, his or her introductory period is extended by the number of days of the absence. A Temporary Employee is not eligible for a leave of absence.

If you take a leave of absence, you must return to work on the next regular working day after your leave of absence expires. If you do not, you will be considered to have voluntarily quit your job. You must ask for written approval in advance to take a leave of absence.

If you know you will need a leave of absence in advance (for example, in cases of military or pregnancy leave), you must give at least two (2) weeks prior written notice of the expected start date of your leave.

Except as required by law, the Company cannot guarantee that your position will still be open when you return from your leave of absence.

Each type of leave of absence has its own rules. All leaves of absence are unpaid. You must consult with your supervisor or the Human Resources Department about the applicable restrictions.

Listed below are the types of leave of absence permitted by the Company:

Medical Leave: Family Care and Medical Leave (CFRA Leave) and Pregnancy Disability Leave Under the California Family Rights Act of 1993 (CFRA), if you have more than 12 months of service with the company and have worked at least 1,250 hours in the 12-month period before the date you want to begin your leave, you may have a right to an unpaid family care or medical leave (CFRA leave). This leave may be up to 12 workweeks in a 12-month period for the birth, adoption, or foster care placement of your child or for your own serious health condition or that of your child, parent or spouse.

Even if you are not eligible for CRFA leave, if disabled by pregnancy, childbirth or related medical conditions, you are entitled to take a pregnancy disability leave of up to four months, depending on your period(s) of actual disability. If you are CFRA-eligible, you have certain rights to take BOTH a pregnancy disability leave and a CFRA leave for reason of the birth of your child. Both leaves contain a guarantee of reinstatement to the same or to a comparable position at the end of the leave, subject to any defense allowed under the law.

You must provide at least 30 days advance notice for foreseeable events (such as the expected birth of a child or a planned medical treatment for yourself or of a family member). For events which are unforeseeable, you must notify us (at least verbally) as soon as you learn of the need for the leave. Notification should be followed up by a statement in writing.

Failure to comply with these notice rules is grounds for, and may result in, deferral of the requested leave until you comply with this notice policy.

We may require certification from your health care provider before allowing you a leave for pregnancy or your own serious health condition or certification from the health care provider of your child, parent, or spouse who has a serious health condition before allowing you a leave to take care of that family member. When medically necessary, leave may be taken on an intermittent or a reduced work schedule.

If you are taking a leave for the birth, adoption or foster care placement of a child, the basic minimum duration of the leave is two weeks and you must conclude the leave within one year of the birth or placement for adoption or foster care.

Taking a family care or pregnancy disability leave may impact certain benefits and your seniority date. If you want more information regarding your eligibility for a leave and/or the impact of the leave on your seniority and benefits, please contact the Human Resources Department.

State Disability Insurance: When you are unable to work or reduce your work hours for the reasons indicated above, you may be eligible to receive State Disability Insurance benefits. A copy of "State Disability Insurance Provisions," DE2515 is available from the Human Resources Department and will provide the details regarding these benefits.

FMLA (Family and Medical Leave Act): With some exceptions, an employee must be allowed to take up to 12 weeks of unpaid leave in any 12-month period under the following circumstances:

- For the birth or adoption of a child
- · To care for a child, spouse, or parent with serious health conditions
- · For the worker's own serious health condition

For approval of an FMLA leave, EZ Electric uses a "Looking Back" method. For more information, please contact the Human Resources Department.

Paid Family Leave: When you stop working or reduce your work hours to care for a family member who is seriously ill or to bond with a new child, you may be eligible to receive Paid Family Leave (PFL) benefits beginning July 1, 2004. A copy of the "Paid Family Leave" DE2511 is available from the Human Resources Department and will provide the details regarding these benefits.

Medical Leave: Occupational Disability -- If you are injured at work, you may be allowed to take an unpaid leave of absence until: a) a recognized medical professional certifies that you are allowed to resume some of the duties of your former position; modified duty may be available b) you are unable to come back to work in your position (i.e., your condition is permanent and stationary); or c) you resign, quit, or otherwise indicate that you are not going to return to your job.

If you are injured while performing your job duties, you may be covered by the Company Workers' Compensation Insurance. See also "ON THE JOB INJURIES" and "WORKERS COMPENSATION" paragraphs included in this manual.

Military Service: Employees are eligible for military leaves of absence. The specific terms and nature of your right to return to your job after a military leave are governed by law.

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COBRA (Consolidated Omnibus Budget Reconciliation Act): Your medical and dental insurance will continue for a month after your leave of absence and then you will be offered COBRA benefits. COBRA notifications will be mailed to you when applicable.

OTHER ALLOWABLE TIME OFF

There may be other times, such as the following occasions, when you must miss work. You must inform your supervisor with as much advance notice as possible when you know you will be absent.

JURY DUTY

If you receive a jury summons, you must inform your supervisor and the Human Resources Department immediately. If you cannot be excused from jury duty or your work schedule cannot be rearranged to avoid conflict, you will be allowed to take time off without pay for each full or partial working day you serve on jury duty. You must report to work on days or parts of days when you are not required to serve. If you do not return to work immediately after an approved leave for jury duty, the Company may assume you voluntarily quit your job.

WITNESS DUTY

You may be required by law to appear in court as a witness. If you give reasonable advance notice to your supervisor, you will be allowed to take unpaid time off.

VOTING TIME

EZ Electric's regular working hours allow ample time for employees to vote before or after their regular working hours. In the event that the company requires an employee to work outside of regular working hours (such as a mandatory overtime situation) the employee will be allowed to schedule up to two hours off without loss of pay. The time off is generally to be either at the beginning or end of the work shift. Employees are to give two days notice if they know at least three days in advance that time off to vote will be necessary.

DEATH IN IMMEDIATE FAMILY

You may be absent without pay for up to three normally scheduled, consecutive working days per year because of death in the immediate family. Immediate family includes current spouse, mother, stepmother, father, stepfather, sister, stepsister, brother, stepbrother, child, stepchild, current mother-in-law, current father-in-law, grandparents, and grandchildren.

If you are a part-time employee or are still in your Introductory Period, you may be allowed to take unpaid bereavement leave up to three (3) days with written approval of your supervisor. This leave will extend your introductory period.

OTHER: In addition to the above mentioned approved leaves, there are several other leaves that may be taken in accordance with all state and federal laws.

COMPANY RULES STRICTLY ENFORCED

Work rules are necessary for good management, employee safety, effective work, and fairness. The violations listed below include, but are not limited to, the following examples of unacceptable conduct:

VIOLATIONS FOR WHICH YOU WILL BE DISCHARGED

The following conduct may result in immediate discharge without warning:

- Malicious or willful destruction or damage to Company property or supplies, or to the property of another employee, customer, or a visitor.
- Stealing or removing without permission Company property or property of another employee, customer, or visitor.
- Obtaining your job by lying or giving false or misleading information; falsifying any employment documents or records, including your co-worker's time records; and other acts of dishonesty.
- Bringing or possessing firearms, weapons, or other hazardous or dangerous devices onto the workplace without proper authorization.
- Possession, use, or sale of alcoholic beverages or illegal drugs at the work place, or reporting for duty under the influence of alcohol or illegal drugs.
- Insubordination, including improper conduct toward a Supervisor or refusal to perform lawful tasks assigned by a Supervisor.
- Fighting on or at the work place.
- Harassing, threatening, intimidating, or coercing a Supervisor or another employee.
- Giving the Company's property away free of charge or at a discount to any person or in violation of the company's policies.
- Concealing or failure to report an error or omission that could result in a safety hazard.
- Willful disregard of safety rules, and common safety practices.
- Loafing or deliberately restricting production.
- Loitering or wasting time on any part of the Company premises or job sites during working hours or deliberately restricting production or inciting others to do so.
- Misuse, or removal, without authorization, of employee lists, blueprints, records or confidential information of any nature.

VIOLATIONS FOR WHICH YOU WILL BE DISCIPLINED

The following examples of violations include, but are not limited to, conduct that will result in discipline. The type of discipline will depend on how serious the violation is and the specific facts and circumstances of the conduct. Discipline includes oral or written warnings, suspension or discharge.

- Unsatisfactory job performance.
- Not following an established safety rule.
- Tardiness or excessive absence from work, including taking too long for lunch and break periods.
- Leaving the job-site or your job during working hours without notifying your supervisor and obtaining permission.
- Horseplay or any other action that is dangerous to others or to Company property or that disrupts work.
- Making preparation to leave work or a job site before the specified time.

- Failure to report personal injuries at once to your supervisor or foreperson.
- Working unauthorized overtime.
- Using company equipment or materials without permission or for personal gain.
- Possessing or removing Company or employee property, or other items without permission.
- Sleeping while on duty.
- Inappropriate dress, appearance or grooming.
- Smoking inside units (smoking is only permissible during rest and meal breaks outside of buildings).
- Side-work on EZ Electric's current or past projects.

EZ Electric expects high quality work from its employees, and expects you to conduct yourself in a businesslike manner. If discipline is necessary, it may take the form of an oral warning, a written warning, suspension, or discharge, at management's discretion. A negative performance evaluation will count as discipline if appropriate. There is no standard series of disciplinary steps the Company must follow in certain circumstances; your conduct may lead to immediate discharge. Further, as previously stated, both you and EZ Electric may terminate your employment at any time, on notice to each other, without cause; the Company's discipline procedures are not meant to imply any contrary policy.

PERSONAL SAFETY AND COMPANY SECURITY

EZ Electric believes that your work environment should be safe and secure, and free from harassment. To accomplish this, you must act in a professional manner toward fellow employees, customers, and members of the community. To maintain the confidentiality of proprietary information, it is important that you follow Company rules regarding security.

YOUR RESPONSIBILITIES

Safety is a vital concern to EZ Electric and is one of your most important responsibilities. Following the Company's safety policies to the letter is essential. If you see an unsafe condition, you must report it to your supervisor. You must also report all accidents, no matter how minor.

The Company requires that all equipment and machinery be in proper working order and safe to work with at all times. If any equipment or machinery breaks down, do not use it until a qualified individual makes sure that it is repaired and safe.

Never try to fix broken equipment or machinery yourself unless you know what you are doing.

From time-to-time, the Company conducts formal safety training. Your attendance at safety meetings or sessions is mandatory.

FIRST AID

In case of a medical emergency, EZ Electric expects all employees to be aware of the following procedures:

- 1. If a serious injury or illness occurs, CALL 911, the emergency phone number. If the injury is serious, but does not require an ambulance, someone will take you to the nearest hospital emergency room.
- 2. If a minor injury occurs while you are on the job, there is a first aid kit located at each office/warehouse location. Please check with your immediate supervisor to find out where the first aid kits are kept at your location. Also, first aid kits are available at all job sites. Your Foreman or Project Manager will show you where it is located.

- 3. If an accident or illness should occur, no matter how slight, notify your manager or supervisor immediately so that appropriate medical treatment may be administered. The transfer of any body fluid (blood, saliva, urine, etc.) may pass on the HIV or other viruses. Please use extreme caution to avoid contact with these bodily fluids. Each first aid kit contains plastic gloves, please be sure to use them. If this is not possible, use a strong disinfectant, such as Lysol or Liquid Bleach, to clean up afterwards.
- 4. On the job injuries will be handled in accordance with Workers' Compensation laws. Any employee who is injured while on the job must notify the Human Resources Department immediately to be eligible for coverage provided under the Workers' Compensation Act. As part of our Drug Free Work Place policy, you may also be required to submit to drug testing if you are injured on the job.

OSHA "WORKER RIGHT TO KNOW" (HAZCOM)

EZ Electric provides information and training on all hazardous materials that are used in their field operations. These materials are used in the field only and stored at the jobsite trailers and/or company warehouses.

All field and warehouse employees are trained at the time of hire and are provided with MSDS sheets for all hazardous materials used by the company. The training includes information about the physical and health hazards associated with the chemicals; protection measures that must be taken to prevent exposure; as well as what to do in case of exposure to the chemicals. Also this training is discussed at safety meetings regularly throughout the year.

WORKERS' COMPENSATION

If you are injured while performing your job duties, you may be covered by the Company Workers' Compensation Insurance. You must report your injury to your supervisor as quickly as possible, no matter how minor it is, and even if you do not need medical treatment. The Supervisor must make a report of the injury to the Human Resources Department as soon as possible after the injury occurs. Claims for Workers' Compensation benefits should be made to the Human Resources Department.

Injured employees should be referred to one of the Company's physicians for medical treatment. However, in emergency situations, this may not be possible or practical.

LIFE-THREATENING DISEASES

The Company is committed to keeping your work environment healthy and safe for all employees; and has established these rules which you should follow if you or one of your co-workers has or contracts a life-threatening illness:

- 1. The Company will treat life threatening illnesses the same as other illnesses in terms of all our employee policies and benefits.
- 2. If you contract a life-threatening illness, you will be allowed to keep working, as long as: a) you can meet the Company's performance standards; b) your illness does not actually endanger the health or safety of other employees or customers; and c) you will not make your illness significantly worse by continuing to work.
- 3. You may not refuse to work because you are afraid of contracting a non-contagious, life-threatening illness from a co-worker. You may not harass or otherwise discriminate against a co-worker who has a life-threatening illness. Employees who refuse to work with or who harass or discriminate against any employee with a life-threatening illness will be disciplined, up to and including discharge.
- 4. In this Manual, "life-threatening illness" includes AIDS, or AIDS-related viruses, Sickle-Cell Trait, cancer, heart disease, or other life-threatening illnesses or diseases.

SUBSTANCE ABUSE

EZ Electric is required by law to provide a safe and healthy work environment for you and all other employees. Further, the Company has adopted the goals of providing the best possible service to its customers and of always improving its public image. To achieve these goals, the Company has the following rules about the use, possession, and sale of drugs and alcohol by its employees.

The use, sale, or possession of narcotics, drugs, alcohol or controlled substances while on the job or on Company property will result in immediate discharge. Conviction for the illegal use, sale, or possession of narcotics, drugs, or controlled substances off duty or off Company property also may result in discharge. If you are arrested for a drug-related offense and are awaiting trial, you will be suspended without pay.

- 1. Until all charges against you are dismissed.
- 2. Until you plead guilty.
- 3. Until your trial results in a verdict. If you plead guilty or are convicted of a drug-related crime, you will lose your job.

The illegal use of drugs off duty and off Company premises is unacceptable. It can have a poor affect on your job performance and job safety.

The company reserves the right to drug test those employees who suffer work related injuries that require medical treatment. An employee under the influence of narcotics, drugs, alcohol or controlled substances while at work is an employee that is potentially unsafe to themselves and the others with whom they work.

Alcohol may not be consumed on Company property, and the use of alcohol during working hours is strictly prohibited and may result in discipline up to and including discharge.

The legal use of controlled substances, such as prescription drugs prescribed by a licensed physician, or over-the-counter medications that you buy at the store, is allowed. However, if you cannot do your job satisfactorily because you are taking prescription or over-the-counter medicine, the Company may require you to see a doctor, at the Company's expense. You may be discharged or obliged to take a leave of absence if the doctor concludes that you cannot do your job safely and efficiently because you are using prescription or over-the-counter medicine.

YOUR APPEARANCE

An appropriate and professional appearance is essential to your job. You are a representative of EZ Electric so you must present a clean and professional image to customers, co-workers, and management. You must practice good grooming and personal hygiene. You must dress in an appropriate manner. Tank tops or shirts with cut-off sleeves are not professional or appropriate. Shorts that do not come within three (3) inches of your knees are not appropriate. T-shirts, sweatshirts, and jeans are appropriate.

Safe footwear must be worn at all times while you are on Company property or the job-site. Shoes that protect your ankles, your toes, and the soles of your feet from being injured from falling objects, penetrated by protruding objects, or twisted by stepping on unexpected objects are appropriate.

USE OF COMPANY PROPERTY

You are expected to use EZ ELECTRIC property only for Company purposes. This means that personal telephone calls should be kept to a minimum, and you should discourage friends, relatives or outside business interests from calling you during business hours unless there is an emergency. When your employment is terminated with the company, you must return all keys, documents, manuals, ladders, and correspondence belonging to EZ ELECTRIC.

HARASSMENT

All personnel are reminded that each employee is at all times to be treated courteously by fellow employees so that he or she is free from harassment or interference based on factors such as those mentioned below.

Harassment is defined as unwelcome or unsolicited verbal, physical or sexual conduct that interferes with an employee's job performance or which creates an intimidating, offensive or hostile work environment, such as but not limited to:

- 1. Questions or comments that unnecessarily infringe on personal privacy are offensive, sexist, off-color or sexual remarks, jokes, slurs or propositions or comments that disparage a person or group on the basis of race, color, age (40 and over), sex, sexual orientation, pregnancy, gender, creed, disability, religion, national origin, ethnic background, military service or citizenship.
- 2. Derogatory or suggestive posters, cartoons, photographs, calendars, graffiti, drawings, physical contact or threats to take such action.
- 3. Unsolicited sexual advances, requests or demands, explicit or implicit, for sexual favors.

If you or one of your co-workers has been the victim of harassment, you must report the incident and the names of the persons to your Supervisor/foreperson or the Human Resources Department immediately. The incident will be investigated. If you do not report harassment, it cannot be investigated. Your cooperation is crucial. There will be no retaliation against you by management for making a complaint of sexual harassment. If you are afraid to report harassment to your supervisor, you should report it to the Human Resources Department.

GRIEVANCE POLICY

If an employee has a problem or complaint, please communicate directly with us:

- 1. Talk to your immediate supervisor.
- 2. If your supervisor cannot help resolve the matter, then speak to the Human Resources Department, who will give your problem or complaint prompt consideration. (See list of names and phone numbers at the back of this manual).
- 3. If the Human Resources Department feels that the situation warrants further review, then the Human Resources Department will seek assistance from the Corporate President.

Our goal is to maintain a comfortable working environment for everybody by maintaining direct communication with all employees and ensuring that each and every one of them may speak directly and openly with our management team.

TERMINATION OF YOUR EMPLOYMENT

The Company will consider you to have voluntarily terminated your employment if you do any of the following:

- Resign from the Company.
- 2. Do not return from an approved leave of absence on the date specified by the Company.
- 3. Fail to report to work and fail to call for two or more days in a row.

You may be terminated for poor performance, misconduct, excessive absences, tardiness, or other violations of the Company rules. However, your employment is "at will" and you and the Company may need to terminate employment because of reorganization, job elimination, economic downturns, or lack of work. Should the Company decide that such termination is necessary, the Company will try to give as much advanced notice as practical.

USE OF PERSONAL VEHICLES ON COMPANY BUSINESS

EZ Electric is not responsible for any damage to employees' cars while on company business. When required to use your personal vehicle, the Company may reimburse employees based on actual miles driven, times the rate established by the Company. This will compensate employees for all gasoline mileage, wear and tear, and insurance costs associated with the business use of their vehicle.

RENTING VEHICLES

The question often arises when "renting" a private passenger vehicle as to whether or not you should purchase the "insurance" offered by the rental company. The "insurance" offered is merely a waiver of their physical damage deductible. If you do not purchase the waiver and you damage the vehicle, you will be responsible for reimbursing them for the cost of repairs up to their physical damage deductible. Depending on the structure of their insurance programs, that amount could be significant. For this reason, we recommend that you purchase the "waiver" offered by the rental company.

CELL PHONE / TWO WAY RADIO USE

It Is EZ Electric Company Policy that all Employees comply and abide by all State and Federal Laws. This includes but is not limited to California's Cell Phone Law. Employees are not permitted to use a wireless telephone (or any communication device) while driving a motor vehicle unless that telephone is specifically designed and configured to allow hands-free listening and talking, and is used in that manner while driving. This policy does not apply to a person using a wireless telephone for emergency purposes as defined by California State Law.

Thank you for taking the time to read this manual.

If you have any questions or concerns please feel free to contact the Human Resources Department

Ken Stern HR Manager (408) 541-4255 office (408) 639-9382 cell



ILLNESS AND INJURY PREVENTION PROGRAM

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POLICY STATEMENT

It is the policy of EZ Electric that every employee is entitled to a safe and healthful place in which to work. To this end, every reasonable effort will be made in the interest of Accident Prevention and Health Preservation.

The management concept of EZ Electric is not production and safety; it is production <u>with</u> safety. When production with safety is achieved, production with efficiency is attained simultaneously.

We at EZ Electric have a basic responsibility to make the safety of human beings a part of our daily, hourly concern. We will be counting on you to do your part in making our program an effective one.

The successful operation of EZ Electric will depend not only on sales and service, but also how safely each job is performed. There is no job so important - nor any service so urgent - that we cannot take time to work safely. I consider the safety of our personnel to be of prime importance, and I expect your full cooperation in making our program effective.

Sincerely,

Scott A. Zachman President

IDENTIFICATION OF PLAN ADMINISTRATORS

The following persons are responsible for implementing the accident prevention plan for EZ Electric.

<u>NAME</u>	<u>TITLE</u>
Scott Zachman	President
Ken Stern	HR/Operation Manager
Bob Matthews	Operations Manager/Estimator
Kevin Taylor	Operations Manager/Estimator
Scott Reynolds	Purchasing Manager
Jeff Mock	Project Manager

MANAGERS AND FOREMAN RESPONSIBILITIES

Managers and Foreman are directly responsible for safety inspections of work locations¹. Any hazards found during these inspections should be documented and corrective actions taken immediately. Even small hazards can mean big injuries.

All levels of management and supervision must understand and enforce company rules regarding safety and safe work practices.

Management representatives of our company are responsible for ensuring that all employees understand and comply with the safety rules of the company. First line supervision must know the capability of subordinates and ensure that work assignments are given only to employees who have been instructed in the work situation being performed, including the hazards associated with the job.

Management representatives are responsible for enforcement of the company disciplinary program, as otherwise described herein. To ensure that we have safe work sites, we must have enforcement of our safety requirements. If a violation of CAL/OSHA or a company safety rule occurs that could result in a serious injury or death, an investigation will be conducted to determine the following information:

- 1. If the responsible person or persons (Managers and Foreman) knew the safety regulations and proceeded with the work in violation of the regulations.
- 2. If the employee exposed to an unsafe or potentially unsafe condition knew of this fact and proceeded to work in violation of safety regulations, notwithstanding such knowledge.

¹These inspections will be performed every day. The work locations will be physically inspected by one of the Managers or Foreman.

EMPLOYEE TRAINING

Employee training is an on-going process; it begins when an employee is first hired and continues at the work locations. Retraining shall be conducted at the time of an employees review.

ALL EMPLOYEES MUST COMPLY WITH ALL COMPANY SAFETY RULES AND ACT WITH COMMON SENSE AT THE WORK LOCATIONS AT ALL TIMES.

When a worker is first employed, he/she shall be given his/her own copy of this Safety Manual and the Accident Prevention Program. He/she shall be instructed to read these documents, sign an acknowledgment that he/she has received, has read, and does understand the requirements of these documents.

Upon hire, all employees must be given instructions regarding the hazards and safety precautions applicable to the type of work in which he/she will be involved. Each new employee will be told the requirements for compliance of this safety program and the disciplinary policies regarding non-compliance.

"Toolbox" or "tailgate" meetings are to be held every week on active job sites. The safety topic shall be communicated by the job foreman. The meeting should also include discussion of the current jobsite conditions, and feedback from employees about hazardous conditions is urged.

Work locations shall have a documented daily hazard assessment/inspection at all active work locations including warehouse, yard, and job sites. At this time a daily safety topic shall be presented to employees.

ACCIDENT REPORTING/INVESTIGATION

Every on-the-job injury <u>must be reported</u> to someone at the work site and to the office. If there is no one working with you at the work site, call the office. There are no exceptions to this policy!!

EZ Electric is required by law to notify the Workers' Comp insurance carrier within 24-hours of injury. We cannot meet this requirement if we are not notified of every injury.

Even if you have a minor injury and are not sure you require medical treatment, call the office and let your Manager or some one in authority know so that proper reporting procedures can take place. (Ken Stern (408-541-4255).

Failure to report a worker's comp injury will have the following consequences:

1st offense may result in a disciplinary action (written warning or 3 day unpaid suspension.

2nd offense may result in a disciplinary action (written warning, 3 day unpaid suspension, or termination).

Subsequent offenses shall result in disciplinary action (written warning, 3 day unpaid suspension, or termination).

If injury requires seeing a doctor or hospitalization, the Foreman/Manager at the work site shall refer to the Safety Binder or Company Intranet for our Medical Provider Network for a list of doctors/clinics to select from for treatment.

If medical treatment is necessary, the Company reserves the right to drug test the injured employee. Working while under the influence of drugs is in direct violation of Company policy and may result in termination of employment.

The Foreman/Manager and/or employee is to notify the Human Resources Manager on the same day as the occurrence. The Foreman/Manager is to investigate the circumstances surrounding the injury, how it happened, any witnesses, time of day, and how the accident could have been avoided.

The Foreman/Manager is to fill out the Supervisor's Report of Injury in detail. He should then turn in a copy of the injury report to the Human Resources Manager within 24 hours.

The employee, within 24 hours of the injury, needs to fill out a Workers' Compensation claim form. These can be obtained from your Foreman/Manager or Human Resources Manager. We provide Workers' Compensation medical benefits if you are hurt on the job.

REMEMBER - KNOWINGLY SUBMITTING A FRAUDULENT WORKERS' COMPENSATION CLAIM IS A FELONY PUNISHABLE BY FINES AND/OR JAIL.

EMPLOYEE DISCIPLINE PROGRAM

Our company will enforce an employee discipline program. The program pertains to those employees who may engage in an unsafe action, including both the employee and the management representative who may have knowledge or be responsible for such actions. The program shall be enforced as follows:

For non-serious incidents in which a company employee is involved:

- 1. First Occasion: Oral or written reprimands.
- 2. **Second Occasion**: Time off without pay, the length of time depending on the severity of the situation and previous reprimands.
- 3. Third Occasion: Probable termination.

For serious incidents in which an employee is involved:

- 1. **First Occasion**: Written reprimand, with time off without pay, the length of time depending upon the severity of the situation.
- 2. Second Occasion: Probable termination.

The difference between non-serious and serious incidents depends upon the possible consequences which could take place if the incident were to occur. If the consequences of the incident could result in a serious injury or death, the incident is properly characterized as "serious" in nature.

HAZARD COMMUNICATION POLICY

To protect the health and safety of our employees, we have developed this Hazard Communication Program:

- 1. We will provide information about hazardous chemical substances used in construction through a comprehensive hazard communication program. MSDS Sheets shall be provided to all employees at the time of hire or upon request.
- 2. The written Hazard Communication program applies to all operations which **MAY** expose an employee to hazardous chemicals as a result of normal work conditions or as the result of a reasonable foreseeable emergency.
- 3. Daily Hazard Communication and Inspections shall take place at all work locations. Hazards identified shall be communicated to all employees at the work location. Inspection documentation and forms shall be located in the work location Safety Binders.

CODE OF SAFE PRACTICES

THIS CODE OF SAFE PRACTICES SHALL BE POSTED AT A CONSPICUOUS LOCATION AT EACH WORK LOCATION OR BE PROVIDED TO EACH SUPERVISORY EMPLOYEE WHO SHALL HAVE IT AVAILABLE AT ALL TIMES.

- 1. All persons shall follow these safe practice rules, render every possible aid to safe operations, and report all defective equipment and any unsafe conditions or practices to the Foreman/Manager.
- 2. Foreman/Managers shall insist on employees observing and obeying every rule, regulation, and order as is necessary to the safe conduct of the work, and shall take such actions as is necessary to obtain observance.
- 3. All employees shall be given frequent accident prevention instructions. Instructions shall be given at least every 10 working days.

- 4. Horseplay, scuffling, and other acts which tend to have an adverse influence on the safety or well-being of the employees shall be prohibited.
- 5. Work shall be well-planned and supervised to prevent injuries in the handling of materials and in working together with equipment.
- 6. No one shall knowingly be permitted or required to work while the employee's ability or alertness is so impaired by fatigue, illness or other causes that it might unnecessarily expose the employee or others to injury. The use or possession of intoxicating beverages or drugs on the job is prohibited.
- 7. When lifting heavy objects, the large muscles of the leg instead of the smaller muscles of the back shall be used.
- 8. Inappropriate footwear or footwear with thin or badly worn soles shall not be worn. Work-type foot wear shall be worn at all times.
- 9. PPE-Hard hats shall be worn when working in a posted area or in areas where there is a possible danger of head injury from impact, or from falling and flying objects. Safety Gloves shall be worn at all times when pulling wire.
- 10. Safety goggles shall be worn while using line voltage power tools and any other time there is a danger of flying debris that could cause eye injury.
- 11. Materials, tools, or other objects shall not be thrown from buildings or structures.
- 12. Work shall be so arranged that employees are able to face a ladder and use both hands while climbing. The correct size ladder for each job shall be used.

USE OF TOOLS AND EQUIPMENT

13. All tools and equipment shall be maintained in good condition.

- 14. Damaged tools and equipment shall be removed from service and tagged as "**DEFECTIVE**" and returned to Foreman/Manager for repair or replacement.
- 15. If a piece of equipment (i.e., ladder or scaffold) is delivered to the work site in faulty condition, **DO NOT USE IT**. Call your Manager and he/she will see that the unsafe conditions are corrected.
- 16. Portable electric tools shall not be lifted or lowered by means of the power cord.
- 17. Electric cords shall not be exposed to damage from vehicles driving over them.
- 18. Check all wiring on electric tools and determine if equipped with the proper ground.

19. Use hand tools only for the purpose for which they are intended.

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ELECTRICAL SAFETY

- 20. If working on an electrical circuit or equipment that could accidentally become energized, lock out and tag circuitry.
- 21. Use extreme caution when working on energized equipment. Lock outs or lock out tags can only be removed by the person who placed them, and then only if no one is in a position to be injured.
- 22. If you are in **DOUBT** whether the circuit or circuits you are about to work on are on or off, treat them as hazardous then test them with a voltage tester.
- 23. Ascertain that the electrical system (temporary power) is safe, regardless of who installed it.
- 24. Always give fellow employees the benefit of your experience. Do not become complacent or set an example that may encourage less experienced employees to take hazardous short cuts.
- 25. Contact your Manager immediately upon discovering unsafe working conditions. Violating any safety rules, including not

immediately reporting any known or unsafe practices, will result in disciplinary action.

WORKERS' COMPENSATION

- 26. All accidents, no matter their severity, will be reported to the job foreman immediately. An injury not reported within 24 hours may not be considered an industrial injury and the employee may not be granted workers compensation benefits.
- 27. If medical treatment is necessary, the injured employee should contact their Foreman/Manager for the nearest workers' compensation clinic. All employees are required to visit clinics or hospitals that EZ Electric assigns, except in the case of extreme emergencies.
- 28. The injured employee must contact their Manager within 24 hours of the accident to fill out "Employees Claim for Workers' Compensation Benefits".
- 29. The employee must obtain a medical release and provide it to their Manager before he may return to work.
- 30. Failure to follow the proper procedures may disqualify an employee from receiving benefits.
- 31. EZ Electric has the right to investigate all Workers' Compensation claims. Filing a fraudulent claim is a crime. Any employee guilty of fraud will be prosecuted to the fullest extent of the law. Employees convicted of fraudulent claims may be imprisoned for up to five years and fined up to \$50,000 or double the fraud, whichever is greater.

EZ Electric

Heat Related Illness and Injury Prevention Plan

Heat Illness Prevention as part of EZ Electric's Illness and Injury Prevention Plan

This section applies to the control of risk of occurrence of heat related illness and injuries. This section applies to all outdoor places of employment at those times when the environment risk factors for heat illness/injury, as defined in (a) are present.

(a) Definitions

Acclimatization means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.

Heat Illness means a group of serious medical conditions resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope and heat stroke.

Environmental risk factors for heat illness means working conditions that affect the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, work load severity and duration, protective clothing and personal protective equipment worn by employees.

Personal risk factors for heat illness means factors such as an individuals age, degree of acclimatization, health, water consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

Recovery Period means a period of time to recover from the heat in order to prevent heat illness.

Shade means blockage of direct sunlight. Canopies, umbrellas and other temporary structures or devices may be used to provide shade. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning turned on.

(b) Provision of Water

Employees shall have access to potable drinking water meeting the California Code of Regulations requirements of sections 1524, 3363, and 3457. Water shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employees may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow them to drink on quart or more per hour.

(c) Access to Shade

Employees suffering from heat illness or believing a preventative recovery period is needed shall be provided access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less then five minutes. Such access to shade shall be permitted at all times.

Employee Training

All EZ Electric employees shall receive heat illness prevention training prior to working outdoors. Training in the following topics shall be provided to all employees that work outdoors:

The environmental and personal risk factors for heat illness

EZ Electric's procedures for complying with the requirements of the Heat Illness and Injury Prevention Plan

The importance of frequent consumption of water, up to 4 cups (1 quart) per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties

The importance of acclimatization

The different types of heat illness and the common signs and symptoms of heat illness

The importance of employees of immediately reporting to their supervisor symptoms or signs of heat illness in themselves or in their co-workers

EZ Electric's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary

EZ Electric's procedure for contacting emergency medical services, and if necessary for transporting employees to a point where they can be reached by an emergency medical service provider

EZ Electric's procedure for ensuring that, in the event of emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders

Supervisor Training

Prior to assignment to supervision of employees working in the heat, training on the following topics shall be provided to all EZ Electric Foreman and Supervisors:

The information required to be provided to employees as listed above in "Employee Training"

The procedures all Foreman and Supervisors are to follow to implement the applicable provisions of Heat Illness Prevention

The procedures all Foreman and Supervisors are to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures

CPR/First Aid Training every two years

Procedures

Working hours will be modified to work during the cooler hours of the day when possible

When modified or shorter work-shift is not possible, more water and rest breaks will be provided

EZ Electric Managers, Foreman, and Supervisors will continuously check all employees, and stay alert to the presence of heat related symptoms

EZ Electric Managers, Foreman, and Supervisors will carry cell phones or other means of communication, to ensure that emergency services can be called, and check that these are functional at the work site prior to the start of each shift

On hot days, and during heat waves, EZ Electric Managers, Foreman, and Supervisors will hold short tailgate meetings to review the Heat Related Illness and Injury Prevention Plan with all workers

All newly hired workers will be assigned to a Project Manager to ensure that they understand the training and follow EZ Electric's procedures

EZ Electric Managers, Foreman, and/or Supervisors will monitor the availability of water every hour, and employees are to report low levels of water to EZ Electric Managers, Foreman, or Supervisors

EZ Electric Managers, Foreman, and Supervisors will provide frequent reminders, to employees to drink frequently, and more water breaks will be provided

Every morning on hot days, and during a heat wave, Managers, Foreman, and Supervisors will remind the workers about the importance of frequent consumption of water throughout the shift

On hot days an ice chest with bottled water or water jugs shall be placed close to the workers, not away from them

When drinking water levels drop below 50%, the water shall be replenished immediately, or water levels should not fall below the point that will allow for adequate water during the time necessary to effect replenishment

All EZ Electric Managers, Foreman, and Supervisors shall have CPR/First Aid Training every two years which will include training in Heat Related Illnesses

Guidance for Workers

Awareness of heat illness symptoms can save your life or the life of a co-worker

If you are coming back to work from an illness or an extended break or you are just starting a job working in the heat, it is important to be aware that you are more vulnerable to heat stress until your body has time to adjust. Let your Supervisor know that you are not used to the heat. It takes about 5-7 days for your body to adjust.

Drinking plenty of water frequently is vital to workers exposed to the heat. An individual may produce as much as 2 to 3 gallons of sweat per day. I order to replenish that fluid the worker should drink 3 to 4 cups of water every hour starting at the beginning of the shift.

Taking your breaks in a cool shaded area and allowing time for recovery from the heat during the day are effective ways to avoid heat illness.

Do not use alcohol or caffeine during periods of extreme heat. Both dehydrate the body.

If you or a co-worker start to feel symptoms such as nausea, dizziness, weakness or unusual fatigue, let your Supervisor know and rest in a cool shaded area. If symptoms persist or worsen seek immediate medical attention.

Whenever possible, wear clothing that provides protection from the sun but allows airflow to the body. Protect your head and shade your eyes if working outdoors in direct sunlight.

When working in the heat be sure to pay extra attention to your co-workers and be sure you know how to call for medical attention.

Responding to Symptoms of Possible Heat Illness

The following details EZ Electric's procedures pursuant to Title 8, Chapter 4, California Code of Regulations (CCR) 3395 Heat Illness Prevention for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary, procedures for contacting emergency medical services, and if necessary for transporting employees to a point where they can be reached by an emergency medical service provider and how to provide clear and precise directions to the work site. These procedures are part of EZ Electric's Illness and Injury Prevention Program.

Employees suffering from heat illness or believing a preventative recovery period is needed shall be provided access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less than five minutes. Such access to shade shall be permitted at all times without prior authorization from a supervisor or any other individual. Additionally, the employee(s) will be encouraged to drink water and/or an electrolyte solution or beverage used to restore potassium and salt.

When an employee is observed with symptoms consistent with heat illness (red face, excessive sweating, increased heart rate, loss of concentration, difficulty in focusing on a task, increased irritability or sickness, little or no desire to drink, fainting, etc.) or heat stroke (mental confusion, delirium, loss of consciousness, convulsions, coma, body temperature of 106 degrees or higher, hot dry skin that may be red, mottled or bluish, etc.) the Manager, Foreman, or Supervisor shall be notified immediately.

In the event that an employee's condition appears to be progressing to a more serious illness (which may include unusual behavior, nausea/vomiting, weakness, rapid pulse, excessive sweating, hot dry skin, seizures, fainting, loss of consciousness, etc.) an immediate medical response (dial 911) will be requested. Regardless of the worker's protest, the employee with any symptoms of possible serious heat illness as noted above will not be sent home, allowed to leave the job-site or left unattended without prior medical assessment and authorization.

The on-site supervisor will immediately contact an Emergency Response Team by dialing 911.

The on-site supervisor will ensure that the request for medical emergency response was successful, and that the location of both the job-site and the victim within the job-site were successfully related to the Emergency Response Team. Additionally an employee (or individual) will be directed by the supervisor to report to the job-site entrance to assist in directing the Emergency Response Team to the location of the victim within the job-site.

An employee who is found to be non-ambulatory on any surface above ground level due to the effects of heat illness will be provided temporary shade that is either open to the air or provided temporary ventilation or cooling while awaiting the arrival of an Emergency Medical Response Team that is properly trained in an approved method of safely moving a non-ambulatory individual to ground level.

In the event that the employee is ambulatory and his location within the project site is such that the Emergency Response Team may have a difficult time locating the exact location, or if the terrain is such that the Emergency Response Team may be unable to reach the victim's exact location, the employee may be transported by vehicle to a more suitable location where access is more readily available.

		 				
ELECTRIC -	DAILY	JOB H	AZARD	ASSESS	SMENT	
SUBDIVISION / COMMUNITY		<u> </u>		JHA LEADER		
DATE / TIME	 		COMPA	NY NAME		
SAFETY PROGRAM ONSITE	☐ IPP/CO	DE OF SAFE	PRACTICE		S PREVENT	ION
TRADES PRESENT	·		- PAINTING - (
FORM INSTRUCTIONS	* IF H	AZARD EXIST	ANSWER YES	IF HAZARD DO	ESN'T EXIST	ANSWER NO *
	MONDAY		WEDNESDAY			SATURDAY
Extreme Heat : Stay hydrated *	•	4	A	T	4	*
is Drinking Water Available?						
Bottled Water or Jug w/cups?						<u> </u>
is Shade Available?						
Crew Trained in Heat Illness Program		California de la compansa de la comp		- 150 A - 100 - A - 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		THE SEVEN BY AND SANDERS IN THE PARTY OF
Hard Hat			N. S. COLUMN ST.	ARCS MANAGES		
Eye Protection				-		
Safety Gloves			 	 		
Leather Work Shoes		· · · · · · · · · · · · · · · · · · ·	 	 		
First Ald Kit on Site?			 	<u> </u>		
MSDS sheets on site?				 		
IIPP on Site?		· · · · · · · · · · · · · · · · · · ·	 			-
1			 			
			1			
					1011000	
Housekeeping - No Food Trash						
Trade's Clean-Up Housekeeping						
Foot Traffic Clear?						
		•				
Extension Ladders Inspected?				,	_	
Extension Ladders Secured?						
Step Ladders Inspected?						
Other Hazard (write in)	California de la Marie Marie de la California de la Calif	en om gålerende er k		THE PERSON NAMED AND ADDRESS OF THE PERSON NAMED AND ADDRESS O	in or a see as a second	
	新疆区区区					
Lock-Out Tag-Out available?						· · · · · · · · · · · · · · · · · · ·
Drills inspected for Defects? Saws Alls inspected for Defects?						
GFCI Protection on site functional?			-			
Extension Cords Ground Plug attached?			-			
Electrical Extension Cords Damaged?						····
Guard Rails in place for fall protection						
Other Hazard (write in)						
	<u>_</u>					
						····
						····
en e						
MONDAY: TUESDAY:						
WEDNESDAY:						
THURSDAY:				· · · · · · · · · · · · · · · · · · ·		
FRIDAY:						
SATURDAY:						
<u>LEGGE MAISTENEUT ON MASTENAUT</u>				国建设、国际公	着连R4m局	ala da a
						,,
				_		
		<u></u>				
	<u> </u>					

JOBSITE WORKSHEET

JOB NAME / ADDRESS:	DATE / TIME:				
IINSPECTION DONE BY:		·····		·	
	N				
NUMBER OF EMPLOYEES:			PPRENTICES		
OPERATIONS & EQUIPMENT:					
·	HAZARDS OBSERVED	N/A	NO	YES	
1. Trips (cords/supplies/debris or oth	nor itomo in notho or work area)	1VA		I P.13	
	••				
2. Slips (liquids, rain, mud, etc. in paths	,	***************************************			
3. Falls (unprotected wall and floor oper	nings, scaffolds, ladders, trenching, etc.)		et		
4. Housekeeping					
5. MMH / Lifting practices (poor body mechanics, overreaching, o	carrying too heavy a load, not getting help, e	tc.)			
5. Improper use of equipment (step ladde	ers used in a "lean-to" position)				
7. Using the wrong tool for the job	•				
β. Using poorly maintained equipment (ε	extension cords, drills, etc.)	***************************************	**************************************		
. Taking unsafe shortcuts	· . :		·		
0. Unsafe movements (running, jumping	, poor body positioning, etc.)				
1. Personal Protective Equipment (hard)	hats, safety glasses, footwear, gloves, etc.)			,	
2. Adequate drinking water		***************************************			
3. Lighting / visibility					
4. Lockout / Tag-out	•				
-				,	
5. Hazards posed by other trades					
COMMENTS:	·				
				•	
EZ IIPP 6-11-12				·	

WAREHOUSE SAFETY INSPECTION CHECKLIST

		DAT	`E	· · · · · · · · · · · · · · · · · · ·
BUILDING	· 			
Instructions. Check (&) each item below as " pertinent comments and the loc each item checked "Unsatisfacto	ation o	ctory" of haze	or "Uns ards in	atisfactory." Add any the space provided for
Condition	N/A	Sat	Unsat	Comment/Location
FLOORS No wet/slip, fall hazard No trip hazard No cords across walkway Other				
STAIRS and RAMPS Lighting adequate Non-slip surfaces in good condition Handrails – available and secure Other				
GENERAL SAFETY No aisles obstructed Area free of falling hazards First aid kit available Emergency lighting functioning Lighting adequate Ladders/stools in safe condition Housekeeping is good Emergency phone numbers posted Emergency phone procedures posted Other				
FIRE EQUIPMENT/EXITS Fire extinguishers accessible Fire extinguishers tagged, serviced Exits properly illuminated Exits clear and unobstructed Other				
FIRE HAZARDS Flammable aerosols and liquids stored and handled properly Storage areas labeled No defective electrical cords Other			0000	

PRE-SHIFT INSPECTION REPORT

TIME	
PRE-SHIFT INSPECTION: Before use each EQUIPMENT shall be given a visual insper limited to the	ction and functional test including but not
	SPECTION CHECK LIST
WALK AROUND INSPECTION (Before Starting	Engine)
1 ENGINE (check belts, hoses, oil I	level and leaks)
2 CHECK ALL FLUID LEVELS (oil,	coolant, fuel, etc.)
3 TIRE AND WHEELS.	•
4 LUBRICATION POINTS	
5 SAFETY DEVICES.	
	CES, (including fall protection when applicable)
7 LOOSE OR MISSING PARTS.	
8 CABLES AND WIRING HARNESS.	
	OL MARKINGS AND OPERATION MANUAL(S).
1 0 "OPERATING" AND "EMERGENCY"	
	ENDIBLE AXLES AND OTHER STRUCTURES.
12 GUARDRAIL SYSTEM (when appli	icable)
13 IS EQUIPMENT CLEAN.	
FTER STARTING ENGINE	
1 4 ENGINE (does it sound normal?)	
15 INSTRUMENTS (check for normal	* '
16 CONTROLS (check for normal op	•
1 7 AIR, HYDRAULIC AND FUEL SYSTI	EM(S) LEAKS.
18 BRAKES	
19 LIGHTS	
20 HORN 21 REVERSE HORN	÷
22 ATTACHMENTS (CONTROLS & FU	INCTIONS)
prior to the us	ffect the safety of operations shall be repaired se of the EQUIPMENT.
PEHATOH:SUPER	RVISOR: DATE:
QUIPMENT EGINNING HOUR METER READING:	ATTACHMENTS
NDING HOUR METER READING:	
EMARKS;	

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be

None known.

HEALTH

HMIS®

REACTIVITY

0

29 CFR 1910.1200. Standard must be consulted for specific requirements.	FLAMMABILITY		1 PERSO	NAL PROTECTION	l Non
Identity L.H. Dottie Tuf Tow	el (TT75)	Note: Blank spacinformation is avail	es are not permitted. If any able, the space must be ma	item is not applicable, or no orked to indicate that.	
SECTION I		_L			
Manufacturer's Name L.H. Dottie Company		Emergency 1-507-527-2	Telephone Numb	per	
Address (Number, Street, City, State, and 2 6131 South Garfield Avenue	ZIP Code)		Number for Inform	nation	
Commerce, CA. 90040		Date Prepar January 1, 2	ed		
			f Preparer (Option	nal)	
SECTION II - Hazardous Ingredients/Iden	tity Information				
Hazardous Components (Specific				Other Limits	
Chemical Identity, Common Name(s))	CAS No.	OSHA PEL	ACGIH-TLV	Recommended	%(Opt.)
d-Limonene	5989-27-5	Not Estab.	Not Estab.		3-7%
Dimethyl Glutarate	1119-40-0	Not Estab.	Not Estab.		1-6%
Dimethyl Adipate	627-93-0	Not Estab.	Not Estab.		0-3%
Dimethyl Succinate	106-65-0	Not Estab.	Not Estab.		0-3%
Poly (oxy-1, 2-ethanediyl),Alpha-	127087-87-0	Not Estab.	Not Estab.	<u>,, , , , , , , , , , , , , , , , , , ,</u>	0-1%
(4-nonylpheny)-omega-hydroxy Diethanonlamine	111-42-2	3ppm+	Not Estab.		1.0%
SECTION III Physical/Chemical Characte	ristics				
Boiling Point Initial	No Data	Specific G	ravity (H ₂ O = 1)	@25° C	1.0004
Vapor Pressure (mm-Hg @ 70° F)	No Data	Melting Po	int		No Data
Vapor Density (AIR = 1)	No Data		on Rate (Butyl Ac	etate = 1)	No Data
Solubility in Water	Soluble	PH			6.2 <u>+</u> 0.5
Appearance and Odor - Opaque yellow liquid with fruity orange scent					
SECTION IV - Fire and Explosion Hazard	Data				
Flash Point (Method Used) >200 Deg F(Estimated)	Flammable I		No Data	LEL No Data	UEL No Data
Extinguishing Media - Use carbon dioxide, dry chemical, foam, fog c	or water spray.				
Special Fire Fighting Procedures - Evacuate area of unprotected personnel. We	ar protective clothin	ig including NIC	SH-approved self	-contained breathin	g apparatus
Remain upwind of fire to avoid hazardous va	pors and decompos	mon products.	Use water spray to	o cool tire-exposed	containers.
Jnusual Fire and Explosion Hazards -					

									January 1, 2002	2
SECTION V - R	Reactivity	Data							ournary 1, 200	
Stability	Unstab			Condit	ions to Avoid	- None kn	own		· · · · · · · · · · · · · · · · · · ·	4
	Stable		Х					-		
Incompatibility			id) -				·· ·····			
Strong oxidizers							•••			
Hazardous Deco	ompositi	on or By	products	5 - 6 - 1. 1						
Carbon dioxide,	May Oc		Unidentii		ions to Avoid					
Polymerization	Will Not		X	Contail	ions to Avoid	- None kn	own			
SECTION VI - I					 ··			····		
Route(s) of Entr		Eves?	<u></u>		Inhalation?		Skin?		Ingestion?	
	´	,		Yes		No	Juliu.	No	ingestion:	Yes
Health Hazards			nic) -						1	
Caution. May ca		rritation.								
Carcinogenicity	:	1	ITP?			IARC Mo	nographs?	os	HA Regulated?	
None known				No			No		No	
Signs and Symp				n af tha	throat as atom	aah na		ع: حادداند المحددة	له مدينة المبينة	
Redness, tearing Medical Condition	one Gene	ig in eye: arallu Ad	s. IIIItalii	hy Evo	THOSE OF STORE	ach, nause	ea, vomiting, a	and diarrinea ir	swallowed.	
						ffected by	this and other	nil and grease	e effective cleaners	e
Emergency and	First Aid	Proced	ures:	tio may t	oo aarolooly a	noolog by	and direction	on and groups	z checkive bleamen	<i>y</i> .
				15 minu	tes lifting eyeli	ds to insur	e complete re	emoval. See a	physician immedia	ately.
									call a physician or	
		. Inhala	tion - Un	likely rou	ite as liquid is	impregnate	ed on a towel,	minimizing ex	posure via this rou	ite. Skin
 None usually re 	<u> </u>									
SECTION VII -										
Steps to be Take	en in Cas	e Materi	ial is Rel	eased o	r Spilled - Cau	ition, slip h	nazard. Wipe	up small relea	ises with a dry abs	orbent
cloth. For large r	eleases,	prevent r	naterial fi	rom ente	ring sewers or	drains. V	entilate area :	and block traffi	c. Pick up and put	t in
suitable containe Waste Disposal			sai.							
Consult local, sta			nulatione	Discaro	l empty contai	ner or offe	r for recycling	OF FOUR		
Precautions to b	ne Taken	in Hand	ling and	Storing	- Do not allow	fowel conf	act with eves	For external	use only. Not for a	ISO
									water, food or fee	
use or storage.			,							,
Other Precaution	ns - Keep	away fro	om heat s	sources.	Keep out of re	each of chi	ldren. Keep o	container tightl	y sealed when not	in use.
SECTION VIII -	Control I	Measure	s							
Respiratory Prof										
			dequate v	/entilatio				ator if PELs or	TLVs are exceede	∋d
Ventilation	Local Ex				Not usually n		Special		None	
. i	Mechan	ical (Ger	neral)		Acceptable	(Other		None	

Protective Gloves -

Not necessary Other Protective Clothing or Equipment -

Not usually necessary.

Work/Hygienic Practices -

Normal. Use to wash hands before eating, drinking, smoking, using restrooms, etc.

| VARING! The last of the product is before the parameter, before, a parameter, expression in policit is not as to be discussed in the behavior of the product of t

Eye Protection -Not necessary

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MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

CARLON ELECTRICAL PRODUCTS ALL WEATHER QUICKSET CLEAR CEMENT Trade Name: Product Numbers: VC9981P, VC9982, VC9983, VC9984, VC9983, VC9985C, VC9983C

Product Use: Cement for PVC Plastic Pipe Formula: PVC Resin in Solvent Solution

Synonyms: PVC Plastic Pipe Cement

Firm Name & CARLON ELECTRICAL PRODUCTS c/o OATEY CO. 4700 West 160th Street

Mailing Address: P.O. Box 35906 Cleveland, Ohio 44135, U.S.A.

http://www.oatey.com

Oatey Phone Number: (216) 267-7100 or (800) 321-9532

Emergency Phone For Emergency First Aid call 1-303-623-5716 COLLECT. For Numbers: chemical transportation emergencies ONLY, call Chemtrec at

1-800-424-9300. Outside the U.S. 1-703-527-3887.

Corporate Director - Safety and Environmental Compliance Prepared By:

Preparation Date: August 25, 2005

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS:	<u>%wt/wt:</u>	CAS NUMBER:	ACGIH TLV TWA:	OSHA PEL TWA	: OTHER:
Tetrahydrofuran	40 - 55%	109-99-9	50 ppm(skin)	200 ppm	25 ppm (Mfg)
			100 ppm STEL		
PVC Resin	12 - 24%	9002-86-2	1.0 mg/m3	15 mg/m3	None
(Non-hazardous)					
Acetone	10 - 25%	67-64-1	500 ppm	1000 ppm	None
			750 ppm STEL		
Cyclohexanone	10 - 20%	108-94-1	20 ppm(skin)	50 ppm	None
			50 ppm STEL		
Amorphous Fumed Sili	.ca 1 - 5%	112945-52-	5 10 mg/m3	None	None
(Non-hazardous)			-	Established	
OSHA Hazard Classifi	cation:	Flammab	le, irritant,	organ effects	

SECTION 3 HAZARDS IDENTIFICATION

Emergency Overview:

Clear liquid with an ether-like odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects. Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney or liver disorders. Aspiration hazard. May be fatal if swallowed. Symptoms may be delayed.

FIRST AID MEASURES SECTION 4

CALL 1-303-623-5716 COLLECT

Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops. Remove

dried cement with Oatey Plumber's Hand Cleaner or baby oil.

If material gets into eyes or if fumes cause irritation, immediately Eyes:

flush eyes with plenty of water until chemical is removed. If

irritation persists, get medical attention immediately.

Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing

becomes difficult, administer oxygen. Administer artificial

respiration if breathing has stopped. Seek immediate medical attention.

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything

by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center

or hospital.

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SECTION 5 FIRE FIGHTING MEASURES

Flashpoint / Method: 0 - 5 Degrees F. (-18 - -15 Degrees C / PMCC

LEL = 1.8 % Volume, UEL = 11.8 % Volume Flammability:

Extinguishing Use dry chemical, CO2, or foam to extinguish fire. Cool fire Media: exposed container with water. Water may be ineffective as an

extinguishing agent.

Special Fire Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in Fighting

Procedure: areas where chemicals are used or stored

Unusual Fire and Extremely flammable liquid. Keep away from heat and all Explosion sources of ignition including sparks, flames, lighted Hazards: cigarettes and pilot lights. Containers may rupture or

explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age. Combustion will produce toxic and irritating vapors including

Hazardous Decomposition carbon monoxide, carbon dioxide and hydrogen chloride.

Products:

SECTION 6

ACCIDENTAL RELEASE MEASURES

Spill or Leak

Procedures:

Remove all sources of ignition and ventilate area. Stop leak if it can be done without risk. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with an inert absorbent such as sand, earth or other non-combusting material. Put absorbent material in covered, labeled metal containers. Prevent liquid from entering watercourses, sewers and natural waterways. Report releases to authorities as required. See Section 13 for disposal information.

SECTION 7

HANDLING AND STORAGE

Handling:

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use.

Storage:

Store in a cool, dry, well-ventilated area away from incompatible

materials. Keep containers closed when not in use.

Other:

"Empty" containers retain product residue and can be hazardous. Follow all MSDS precautions in handling empty containers. Do not cut or weld on or near empty or full containers.

SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Open doors & windows. Provide ventilation capable of maintaining emissions at the point of use below recommended exposure limits. If used in enclosed area, use exhaust fans. Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of solvent vapors are not exposed to electrical fixtures or hot surfaces.

Respiratory Protection:

For operations where the exposure limit may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained

breathing apparatus.

Skin Protection: Rubber gloves are suitable for normal use of the product. For long exposures chemical resistant gloves may be required such as

4H(tm) or Silver Shield(tm) to avoid prolonged skin contact.

SECTION 8 (Continued)

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Eye Safety glasses with sideshields or safety goggles.

Protection:

Other: Eye wash and safety shower should be available.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES
Boiling Point: 151 Degrees F / 66 Degrees C

Melting Point: Not Applicable

Vapor Pressure: 145 mmHg @ 20 Degrees C

Vapor Density: (Air = 1) 2.5 Volatile Components: 81-85% Solubility In Water: Negligible pH: Not Applicable

Specific Gravity: 0.94 + /- 0.01 @ 20 Degrees C

Evaporation Rate: (BUAC = 1) = 5.5 - 8.0

Appearance: Clear Liquid
Odor: Ether-Like
Will Dissolve In: Tetrahydrofuran

Material Is: Liquid

SECTION 10 STABILITY AND REACTIVITY

Stability: Stable.

Conditions To Avoid: Avoid heat, sparks, flames and other sources of ignition.

Hazardous Combustion will produce toxic and irritating vapors
Decomposition including carbon monoxide, carbon dioxide and hydrogen

Products: chloride.

Incompatibility/ Oxidizing agents, alkalis, amines, ammonia, acids, chlorine Materials To Avoid: compounds, chlorinated inorganics (potassium, calcium and

sodium hypochlorite) and hydrogen peroxides. May attack

plastic, resins and rubber.

Hazardous Will not occur.

Polymerization:

SECTION 11 TOXICOLOGICAL INFORMATION

Inhalation: Vapors or mists may cause mucous membrane and respiratory

irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness.

May cause kidney, liver and lung damage.

Skin: May cause irritation with redness, itching and pain. Cyclohexanone

may be absorbed through the skin causing effects similar to those

listed under inhalation.

Eye: Vapors may cause irritation. Direct contact may cause irritation

with redness, stinging and tearing of the eyes. May cause eye

damage.

Ingestion: Swallowing may cause abdominal pain, nausea, vomiting and

diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver

damage.

Chronic Prolonged or repeated overexposure cause dermatitis and damage

Toxicity: to the kidney, liver, lungs and central nervous system.

Toxicity Data: Acetone: Oral rat LD50: 5,800 mg/kg

Inhalation rat LC50: 50,100 mg/m3/8 hours

Cyclohexanone: Oral rat LD50: 1,620 mg/kg

Inhalation rat LC50: 8,000 ppm/4 hours

Skin rabbit LD50: 1 mL/kg

Tetrahydrofuran: Oral rat LD50: 1,650 mg/kg

Inhalation rat LC50: 21,000 ppm/3 hours

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SECTION 11 (Continued)

Sensitization: Carcinogenicity:

None of the components are known to cause sensitization. None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA. The National Toxicology Program has reported that exposure of mice and rats to tetrahydrofuran (THF) vapor levels up to 1800 ppm 6 hr/day, 5 days/week for their lifetime caused an increased incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health is unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF. ACGIH has classified cyclohexanone (CYH) and tetrahydrofuran as "A3," Confirmed Animal Carcinogens with Unknown Relevance to Humans.

Mutagenicity:

Cyclohexanone has been positive in bacterial and mammalian assays. Acetone and tetrahydrofuran are generally thought not to be mutagenic.

Reproductive Toxicity:

Cyclohexanone has been shown to cause embryofetal toxicity and

birth defects in laboratory animals.

Acetone and tetrahydrofuran have been found to cause adverse developmental effects only when exposure levels cause other

toxic effects to the mother.

Medical Conditions Aggravated By Exposure:

Persons with pre-existing skin, lung, kidney or liver disorders may be at increased risk from exposure to this product.

SECTION 12

ECOLOGICAL INFORMATION

This product is not expected to be toxic to aquatic organisms. Cyclohexanone: 96 hour LC50 values for fish is over 100 mg/l. Tetrahydrofuran: 96 hour LC50 fathead minnow: 2160 mg/L. Acetone: 96 hour LC50 for fish is greater than 100 mg/L.

VOC

This product emits VOC's (volatile organic compounds) in its use. Information: Make sure that use of this product complies with local VOC emission

regulations, where they exist.

VOC Level:

600 g/l per SCAQMD Test Method 316A.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose in accordance with current local, state and federal

regulations.

U002, U057, U213 RCRA Hazardous Waste Number: EPA Hazardous Waste ID Number: D001, F003 EPA Hazard Waste Class: Ignitable Waste.

MSDS No: CAR020C5 Issue Date: 25 Aug. 2005

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SECTION 14 TRANSPORT INFORMATION

DOT Less than 1 Liter (0.3 gal) Greater than 1 Liter (0.3 gal)

Proper Shipping Name: Consumer Commodity Adhesives Hazard Class/Packing Group: ORM-D 3, PGII UN/NA Number: None UN1133

Hazard Labels: None Flammable Liquid

IMDG

Proper Shipping Name: Adhesives Adhesives Hazard Class/Packing Group: 3, II 3, II UN Number: UN1133 UN1133

Label: None (Limited Quantities Class 3 (Flammable

> are excepted Liquid)

from labeling)

2004 North American Emergency Response Guidebook Number: 127 or 128

SECTION 15 REGULATORY INFORMATION

Hazard Category for Section Acute Health, Chronic Health, Flammable

311/312:

Section 302 Extremely

Hazardous Substances (TPQ):

Section 313 Toxic Chemicals:

CERCLA 103 Reportable

Quantity:

This product does not contain chemicals regulated

under SARA Section 302.

This product contains no chemicals subject to SARA

Title III Section 313 Reporting requirements. Spills of this product over the RQ (reportable

quantity) must be reported to the National Response Center. The RQ for the product, based on the RQ for Tetrahydrofuran (55% maximum) of 1,000 lbs, is 1,818

lbs. Many states have more stringent release

reporting requirements. Report spills required under

federal, state and local regulations.

California Proposition 65: This product contains trace amounts of chemicals

known to the State of to cause cancer. Under normal Use conditions, exposure to these chemicals at levels above the State of California "No Significant Risk

Level" (NSRL) are unlikely. Oatey strongly encourages the use of proper personal protective equipment (PPE) and ventilation guidelines noted in Section 8 to minimize exposure to these chemicals.

All of the components of this product are listed on TSCA Inventory: the TSCA inventory.

Canadian WHIMS Classification: Class B, Division 2; Class D, Division 2,

Subdivision B. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all

the information required by the CPR.

SECTION 16

NFPA and HMIS:

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None

HMIS Hazard Signal: Health: 2* Flammability: 3 Reactivity: 1 PPE: G

The information herein has been compiled from sources believed to be reliable, upto-date, and is accurate to the best of our knowledge. However, Oatey cannot give any quarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.

MSDS No: CAR010C5 Issue Date: 25 Aug. 2005 Page: 1 of 5

MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Trade Name: CARLON ELECTRICAL PRODUCTS STANDARD CLEAR PVC SOLVENT CEMENT

Product Numbers: VC9961P, VC9962, VC9963, VC9964, VC9963C, VC9965C

Product Use: Cement for PVC Plastic Pipe Formula: PVC Resin in Solvent Solution

Synonyms: PVC Plastic Pipe Cement

Firm Name & CARLON ELECTRICAL PRODUCTS c/o OATEY CO. 4700 West 160th Street

Mailing Address: P.O. Box 35906 Cleveland, Ohio 44135, U.S.A.

http://www.oatey.com

Oatey Phone Number: (216) 267-7100 or (800) 321-9532

Emergency Phone For Emergency First Aid call 1-303-623-5716 COLLECT. For chemical transportation emergencies ONLY, call Chemtrec at Numbers:

1-800-424-9300. Outside the U.S. 1-703-527-3887.

Prepared By: Corporate Director - Safety and Environmental Compliance

Preparation Date: August 25, 2005

COMPOSITION/INFORMATION ON INGREDIENTS SECTION 2

INGREDIENTS:	%wt/wt:	CAS NUMBER:	ACGIH TLV TWA:	OSHA PEL TWA:	OTHER:
Tetrahydrofuran	30 - 65%	109-99-9	50 ppm(skin)	200 ppm	25 ppm (Mfg)
			100 ppm STEL		
Methyl Ethyl Ketone	10 - 30%	78-93-3	200 ppm	200 ppm	None
			300 ppm STEL		
Acetone	10 - 20%	67-64-1	500 ppm	1000 ppm	None
			750 ppm STEL		
PVC Resin	10 - 20%	9002-86-2	10 mg/m3	15 mg/m3	None
(Non-hazardous)					
Cyclohexanone	7 - 13%	108-94-1	20 ppm(skin)	50 ppm	None
			50 ppm STEL		
Amorphous Fumed Silic	a 1 - 5%	112945-52-	5 10 mg/m3	None	None
(Non-hazardous)				Established	

OSHA Hazard Classification: Flammable, irritant, organ effects

SECTION 3 HAZARDS IDENTIFICATION

Emergency Overview:

Clear liquid with an ether-like odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects. Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney or liver disorders. Aspiration hazard. May be fatal if swallowed. Symptoms may be delayed.

SECTION 4 FIRST AID MEASURES

CALL 1-303-623-5716 COLLECT

Remove contaminated clothing immediately. Wash all exposed areas with Skin: soap and water. Get medical attention if irritation develops. Remove

dried cement with Oatey Plumber's Hand Cleaner or baby oil.

Eyes: If material gets into eyes or if fumes cause irritation, immediately

flush eyes with plenty of water until chemical is removed.

irritation persists, get medical attention immediately.

Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing

becomes difficult, administer oxygen. Administer artificial

respiration if breathing has stopped. Seek immediate medical attention.

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything

by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center

or hospital.

MSDS No: CAR010C5 Issue Date: 25 Aug. 2005 Page: 2 of 5

FIRE FIGHTING MEASURES

Flashpoint / Method: 0 - 5 Degrees F. (-18 - -15 Degrees C / PMCC

Flammability: LEL = 1.8 % Volume, UEL = 11.8 % Volume

Extinguishing Use dry chemical, CO2, or foam to extinguish fire. Cool fire

Media: exposed container with water. Water may be ineffective as an

extinguishing agent.

Special Fire Firefighters should wear positive pressure self-contained Fighting breathing apparatus and full protective clothing for fires in

Procedure: areas where chemicals are used or stored

Extremely flammable liquid. Keep away from heat and all Unusual Fire and Explosion sources of ignition including sparks, flames, lighted Hazards: cigarettes and pilot lights. Containers may rupture or

explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age. Combustion will produce toxic and irritating vapors including

Hazardous Decomposition carbon monoxide, carbon dioxide and hydrogen chloride.

Products:

SECTION 6

ACCIDENTAL RELEASE MEASURES

Spill or Remove all sources of ignition and ventilate area. Stop leak if it Leak can be done without risk. Personnel cleaning up the spill should Procedures: wear appropriate personal protective equipment, including respirators

if vapor concentrations are high. Soak up spill with an inert absorbent such as sand, earth or other non-combusting material. Put absorbent material in covered, labeled metal containers. Prevent liquid from entering watercourses, sewers and natural waterways. Report releases to authorities as required. See Section 13 for

disposal information.

SECTION 7

HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors

or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep

containers closed when not in use.

Store in a cool, dry, well-ventilated area away from incompatible Storage:

materials. Keep containers closed when not in use.

Other: "Empty" containers retain product residue and can be hazardous.

Follow all MSDS precautions in handling empty containers. Do not cut

or weld on or near empty or full containers.

SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Open doors & windows. Provide ventilation capable of maintaining Ventilation:

> emissions at the point of use below recommended exposure limits. If used in enclosed area, use exhaust fans. Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of solvent vapors are not exposed to electrical fixtures or hot

surfaces.

Respiratory

For operations where the exposure limit may be exceeded, a NIOSH Protection: approved organic vapor respirator or supplied air respirator is

recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained

breathing apparatus.

Skin Rubber gloves are suitable for normal use of the product. For long

Protection: exposures chemical resistant gloves may be required such as

4H(tm) or Silver Shield(tm) to avoid prolonged skin contact.

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SECTION 8 (Continued)

Safety glasses with sideshields or safety goggles.

Protection:

Other: Eye wash and safety shower should be available.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

151 Degrees F / 66 Degrees C Boiling Point:

Melting Point: Not Applicable

Vapor Pressure: 145 mmHg @ 20 Degrees C

Vapor Density: (Air = 1) 2.5

Volatile Components: 81-85% Solubility In Water: Negligible pH: Not Applicable

Specific Gravity: 0.94 +/- 0.01 @ 20 Degrees C

(BUAC = 1) = 5.5 - 8.0Evaporation Rate:

Appearance: Clear Liquid Odor: Ether-Like Will Dissolve In: Tetrahydrofuran

Material Is: Liquid

SECTION 10 STABILITY AND REACTIVITY

Stability: Stable.

Conditions To Avoid: Avoid heat, sparks, flames and other sources of ignition.

Hazardous Combustion will produce toxic and irritating vapors Decomposition including carbon monoxide, carbon dioxide and hydrogen

Products: chloride.

Incompatibility/ Oxidizing agents, alkalis, amines, ammonia, acids, chlorine Materials To Avoid: compounds, chlorinated inorganics (potassium, calcium and

sodium hypochlorite) and hydrogen peroxides. May attack

plastic, resins and rubber.

Hazardous Will not occur.

Polymerization:

SECTION 11 TOXICOLOGICAL INFORMATION

Vapors or mists may cause mucous membrane and respiratory Inhalation:

irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness.

May cause kidney, liver and lung damage.

May cause irritation with redness, itching and pain. Cyclohexanone Skin:

may be absorbed through the skin causing effects similar to those

listed under inhalation.

Vapors may cause irritation. Direct contact may cause irritation Eye:

with redness, stinging and tearing of the eyes. May cause eye

damage.

Ingestion: Swallowing may cause abdominal pain, nausea, vomiting and

> diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver

damage.

Chronic Prolonged or repeated overexposure cause dermatitis and damage

Toxicity: to the kidney, liver, lungs and central nervous system.

Toxicity Data: Acetone: Oral rat LD50: 5,800 mg/kg

Inhalation rat LC50: 50,100 mg/m3/8 hours

Oral rat LD50: 1,620 mg/kg Cyclohexanone:

Inhalation rat LC50: 8,000 ppm/4 hours

Skin rabbit LD50: 1 mL/kg

Oral rat LD50: 1,650 mg/kg Tetrahydrofuran:

Inhalation rat LC50: 21,000 ppm/3 hours

Methyl Ethyl Ketone: Oral rat LD50: 2,737mg/kg

Inhalation rat LC50: 23,500mg/m3/8 hours

Skin rabbit LD50: 6,480 mg/kg

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SECTION 11 (Continued)

Sensitization: Carcinogenicity:

None of the components are known to cause sensitization. None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA. The National Toxicology Program has reported that exposure of mice and rats to tetrahydrofuran (THF) vapor levels up to 1800 ppm 6 hr/day, 5 days/week for their lifetime caused an increased incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health is unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF. ACGIH has classified cyclohexanone (CYH) and tetrahydrofuran as "A3," Confirmed Animal Carcinogens with Unknown Relevance to Humans.

Mutagenicity:

Cyclohexanone has been positive in bacterial and mammalian assays. Acetone, methyl ethyl ketone and tetrahydrofuran are generally thought not to be mutagenic.

Reproductive Toxicity:

Cyclohexanone and methyl ethyl ketone have been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone and tetrahydrofuran have been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

Medical Conditions Aggravated By Exposure:

Persons with pre-existing skin, lung, kidney or liver disorders

may be at increased risk from exposure to this product.

SECTION 12 ECOLOGICAL INFORMATION

This product is not expected to be toxic to aquatic organisms. Cyclohexanone: 96 hour LC50 values for fish is over 100 mg/l. Tetrahydrofuran: 96 hour LC50 fathead minnow: 2160 mg/L.

Methyl Ethyl Ketone: 96 hour LC50 for fish is greater than 100 mg/L.

Acetone: 96 hour LC50 for fish is greater than 100 mg/L.

VOC This product emits VOC's (volatile organic compounds) in its use. Information: Make sure that use of this product complies with local VOC emission

regulations, where they exist.

VOC Level: 600 g/l per SCAQMD Test Method 316A.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose in accordance with current local, state and federal

regulations.

RCRA Hazardous Waste Number: U002, U057, U159, U213 EPA Hazardous Waste ID Number: D001, D035, F003, F005

EPA Hazard Waste Class: Ignitable Waste. Toxic Waste (Methyl Ethyl Ketone content)

MSDS No: CAR010C5
Issue Date: 25 Aug. 2005

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SECTION 14 TRANSPORT INFORMATION

Less than 1 Liter (0.3 gal) Greater than 1 Liter (0.3 gal)

Proper Shipping Name: Consumer Commodity Adhesives Hazard Class/Packing Group: ORM-D 3, PGII UN/NA Number: None UN1133

Hazard Labels: None Flammable Liquid

IMDG

Proper Shipping Name: Adhesives Adhesives Hazard Class/Packing Group: 3, II 3, II UN Number: UN1133 UN1133

Label: None (Limited Quantities Class 3 (Flammable

> are excepted Liquid)

from labeling)

2004 North American Emergency Response Guidebook Number: 127 or 128

SECTION 15 REGULATORY INFORMATION

Hazard Category for Section Acute Health, Chronic Health, Flammable

311/312:

Section 302 Extremely This product does not contain chemicals regulated

Hazardous Substances (TPQ): under SARA Section 302.

Section 313 Toxic Chemicals: This product contains the following chemicals

subject to SARA Title III Section 313 Reporting

requirements:

Chemical CAS # % by wt. Methyl Ethyl Ketone 78-93-3 10-30%

CERCLA 103 Reportable

Spills of this product over the RQ (reportable Quantity: quantity) must be reported to the National Response

Center. The RQ for the product, based on the RQ for Tetrahydrofuran (65% maximum) of 1,000 lbs, is 1,538

lbs. Many states have more stringent release

reporting requirements. Report spills required under

federal, state and local regulations.

California Proposition 65: This product contains trace amounts of chemicals

> known to the State of to cause cancer. Under normal Use conditions, exposure to these chemicals at levels above the State of California "No Significant Risk Level" (NSRL) are unlikely. Oatey strongly

encourages the use of proper personal protective equipment (PPE) and ventilation quidelines noted in Section 8 to minimize exposure to these chemicals.

All of the components of this product are listed on TSCA Inventory:

the TSCA inventory.

Canadian WHIMS Classification: Class B, Division 2; Class D, Division 2,

Subdivision B. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all

the information required by the CPR.

SECTION 16

NFPA and HMIS:

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None

HMIS Hazard Signal: Health: 2* Flammability: 3 Reactivity: 1

Disclaimer:

The information herein has been compiled from sources believed to be reliable, upto-date, and is accurate to the best of our knowledge. However, Oatey cannot give any quarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.

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MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Trade Name: CARLON ELECTRICAL PRODUCTS MEDIUM GRAY LO-VOC PVC CEMENT Product Numbers: VC9LV2, VC9LV3, VC9LV3L, VC9LV4, VC9LV4-24, VC9LV4L-24

Product Use: Cement for PVC Plastic Pipe
Formula: PVC Resin in Solvent Solution

Synonyms: PVC Plastic Pipe Cement

Firm Name & CARLON ELECTRICAL PRODUCTS c/o OATEY CO. 4700 West 160th Street

Mailing Address: P.O. Box 35906, Cleveland, Ohio 44135, U.S.A.

http://www.oatey.com

Oatey Phone Number: (216) 267-7100 or (800) 321-9532.

Emergency Phone For Emergency First Aid call 1-303-623-5716 COLLECT. For Numbers: chemical transportation emergencies ONLY, call Chemtrec at

1-800-424-9300. Outside the U.S. 1-703-527-3887.

Prepared By: Corporate Director - Safety and Environmental Compliance

Preparation Date: April 4, 2007

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS:	%:wt/wt	CAS NUMBER:	ACGIH TLV TWA:	OSHA PEL TWA	: OTHER:
Tetrahydrofuran	35 - 50%	109-99-9	50 ppm(skin)	200 ppm	25 ppm (Mfg)
			100 ppm STEL		_
Methyl Ethyl Ketone	10 - 20%	78-93-3	200 ppm	200 ppm	None
			300 ppm STEL		
PVC Resin	10 - 18%	9002-86-2	10 mg/m3	15 mg/m3	None
(Non-hazardous)					
Acetone	10 - 20%	67-64-1	500 ppm	1000 ppm	None
			750 ppm		
Cyclohexanone	7 - 15%	108-94-1	20 ppm(skin)	50 ppm	None
			50 ppm STEL		
Amorphous Fumed Silic	a 1 - 5%	112945-52-	5 10 mg/m3	None	None
(Non-hazardous)				Established	
OSHA Hazard Classific	ation.	El ammah	lo irritant	argan offocts	

OSHA Hazard Classification: Flammable, irritant, organ effects

SECTION 3 HAZARDS IDENTIFICATION

Emergency Overview:

Gray liquid with an ether-like odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects. Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney or liver disorders. Aspiration hazard. May be fatal if swallowed. Symptoms may be delayed.

SECTION 4 FIRST AID MEASURES

CALL 1-303-623-5716 COLLECT

Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops. Remove

dried cement with Oatey Plumber's Hand Cleaner or baby oil.

Eyes: If material gets into eyes or if fumes cause irritation, immediately

flush eyes with plenty of water until chemical is removed. I

irritation persists, get medical attention immediately.

Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing

becomes difficult, administer oxygen. Administer artificial

respiration if breathing has stopped. Seek immediate medical attention.

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything

by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center

or hospital.

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SECTION 5 FIRE FIGHTING MEASURES

Flashpoint / Method: 0 to 5 Degrees F. (-18 to -15 Degrees C) / PMCC

Flammability: LEL = 1.8 % Volume, UEL = 11.8 % Volume

Extinguishing Use dry chemical, CO2, or foam to extinguish fire. Cool fire Media: exposed container with water. Water may be ineffective as an

extinguishing agent.

Special Fire Firefighters should wear positive pressure self-contained Fighting breathing apparatus and full protective clothing for fires in

Procedure: areas where chemicals are used or stored

Unusual Fire and Extremely flammable liquid. Keep away from heat and all Explosion sources of ignition including sparks, flames, lighted Hazards: cigarettes and pilot lights. Containers may rupture or explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back. This product contains tetrahydrofuran that may form explosive

organic peroxide when exposed to air or light or with age. Combustion will produce toxic and irritating vapors including

Decomposition carbon monoxide, carbon dioxide and hydrogen chloride.

Products:

Hazardous

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill or Leak

Remove all sources of ignition and ventilate area. Stop leak if it can be done without risk. Personnel cleaning up the spill should Procedures: wear appropriate personal protective equipment, including respirators

if vapor concentrations are high. Soak up spill with an inert absorbent such as sand, earth or other non-combusting material. Put absorbent material in covered, labeled metal containers. Prevent liquid from entering watercourses, sewers and natural waterways. Report releases to authorities as required. See Section 13 for

disposal information.

SECTION 7 HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors

or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other

sources of ignition. No smoking in storage or use areas. Keep

containers closed when not in use.

Storage: Store in a cool, dry, well-ventilated area away from incompatible

materials. Keep containers closed when not in use.

"Empty" containers retain product residue and can be hazardous. Other:

Follow all MSDS precautions in handling empty containers. Do not cut

or weld on or near empty or full containers.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Open doors & windows. Provide ventilation capable of maintaining Ventilation:

emissions at the point of use below recommended exposure limits. If used in enclosed area, use exhaust fans. Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of solvent vapors are not exposed to electrical fixtures or hot

surfaces.

For operations where the exposure limit may be exceeded, a NIOSH Respiratory

approved organic vapor respirator or supplied air respirator is Protection:

> recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained

breathing apparatus.

Rubber gloves are suitable for normal use of the product. For long Skin

Protection: exposures chemical resistant gloves may be required such as

Page: 3 of 5

4H(tm) or Silver Shield(tm) to avoid prolonged skin contact.

SECTION 8 (Continued)

Eye Safety glasses with side shields or safety goggles.

Protection:

Other: Eye wash and safety shower should be available.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES
Boiling Point: 151 Degrees F / 66 Degrees C

Melting Point: Not applicable

Vapor Pressure: 145 mmHg @ 20 Degrees C

Vapor Density: (Air = 1) 2.5
Volatile Components: 70 - 80%
Solubility In Water: Negligible
pH: Not applicable

Specific Gravity: 0.94 +/- 0.02 @ 20 Degrees C

Evaporation Rate: (BUAC = 1) = 5.5 - 8.0

Appearance: Gray Liquid
Odor: Ether-Like
Will Dissolve In: Tetrahydrofuran

Material Is: Liquid

SECTION 10 STABILITY AND REACTIVITY

Stability: Stable.

Conditions To Avoid: Avoid heat, sparks, flames and other sources of ignition.

Hazardous Combustion will produce toxic and irritating vapors
Decomposition including carbon monoxide, carbon dioxide and hydrogen

Products: chloride.

Incompatibility/ Oxidizing agents, alkalis, amines, ammonia, acids, chlorine Materials To Avoid: compounds, chlorinated inorganics (potassium, calcium and

sodium hypochlorite) and hydrogen peroxides. May attack

plastic, resins and rubber.

Hazardous Will not occur.

Polymerization:

SECTION 11 TOXICOLOGICAL INFORMATION

Inhalation: Vapors or mists may cause mucous membrane and respiratory

irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness.

May cause kidney, liver and lung damage.

Skin: May cause irritation with redness, itching and pain. Methyl

ethyl ketone and cyclohexanone may be absorbed through the skin

causing effects similar to those listed under inhalation.

Eye: Vapors may cause irritation. Direct contact may cause irritation

with redness, stinging and tearing of the eyes. May cause eye

damage.

Ingestion: Swallowing may cause abdominal pain, nausea, vomiting and

diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver

damage.

Chronic Prolonged or repeated overexposure cause dermatitis and damage

Toxicity: to the kidney, liver, lungs and central nervous system.

Toxicity Data: Acetone: Oral rat LD50: 5,800 mg/kg

Inhalation rat LC50: 50,100 mg/m3/8 hours

Cyclohexanone: Oral rat LD50: 1,620 mg/kg

Inhalation rat LC50: 8,000 ppm/4 hours

Skin rabbit LD50: 1 mL/kg

Tetrahydrofuran: Oral rat LD50: 1,650 mg/kg

Inhalation rat LC50: 21,000 ppm/3 hours

Page: 4 of 5

SECTION 11 (Continued)

Methyl Ethyl Ketone: Oral rat LD50: 2,737 mg/kg

Inhalation rat LC50: 23,500 mg/m3/8 hours

Skin rabbit LD50: 6,480 mg/kg

Sensitization: None of the components are known to cause sensitization. Carcinogenicity:

None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA. The National Toxicology Program has reported that exposure of mice and rats to Tetrahydrofuran (THF) vapor levels up to 1800 ppm 6 hr/day, 5 days/week for their lifetime caused an increased incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health is unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF. ACGIH has classified cyclohexanone (CYH) and tetrahydrofuran (THF) as "A3,"

Confirmed Animal Carcinogens with Unknown Relevance to Humans.

Mutagenicity: Cyclohexanone has been positive in bacterial and mammalian

assays. Acetone, methyl ethyl ketone and tetrahydrofuran are

generally thought not to be mutagenic.

Reproductive Toxicity:

Methyl ethyl ketone and cyclohexanone have been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone and tetrahydrofuran have been found to cause adverse developmental effects only when exposure levels cause other

toxic effects to the mother.

Medical Conditions Aggravated By Exposure:

Persons with pre-existing skin, lung, kidney or liver disorders

may be at increased risk from exposure to this product.

SECTION 12 ECOLOGICAL INFORMATION

> This product is not expected to be toxic to aquatic organisms. Cyclohexanone: 96 hour LC50 values for fish is over 100 mg/l.

Tetrahydrofuran: 96 hour LC50 fathead minnow: 2160 mg/L.

Methyl Ethyl Ketone: 96 hour LC50 for fish is greater than 100 mg/L.

Acetone: 96 hour LC50 for fish is greater than 100 mg/L.

VOC This product emits VOC's (volatile organic compounds) in its use. Information: Make sure that use of this product complies with local VOC emission

regulations, where they exist.

VOC Level: 460 g/l per SCAQMD Test Method 316A.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose in accordance with current local, state and federal

regulations.

RCRA Hazardous Waste Number: U002, U057, U159, U213 EPA Hazardous Waste ID Number: D001, D035, F003, F005

EPA Hazard Waste Class: Ignitable Waste. Toxic Waste (Methyl Ethyl Ketone content)

Page: 5 of 5

SECTION 14 TRANSPORT INFORMATION

DOT <u>Less than 1 Liter (0.3 gal)</u> Greater than 1 Liter (0.3 gal)

Proper Shipping Name: Consumer Commodity Adhesives
Hazard Class/Packing Group: ORM-D 3, PGII
UN/NA Number: None UN1133

Hazard Labels: None Flammable Liquid

IMDG

Proper Shipping Name: Adhesives
Hazard Class/Packing Group: 3, II 3, II
UN Number: UN1133 UN1133

Label: None (Limited Quantities Class 3 (Flammable

are excepted Liquid)

from labeling)

2004 North American Emergency Response Guidebook Number: 127 or 128

SECTION 15 REGULATORY INFORMATION

Hazard Category for Section Acute Health, Chronic Health, Flammable

311/312:

Section 302 Extremely This product does not contain chemicals regulated

Hazardous Substances (TPQ): under SARA Section 302.

Section 313 Toxic Chemicals: This product does not contain chemicals regulated

under SARA Section 313.

CERCLA 103 Reportable

Quantity:

Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for the product, based on the RQ for Tetrahydrofuran (50% maximum) of 1,000 lbs, is 2,000

lbs. Many states have more stringent release

reporting requirements. Report spills required under

federal, state and local regulations.

California Proposition 65: This product contains trace amounts of chemicals

known to the State of to cause cancer. Under normal Use conditions, exposure to these chemicals at levels above the State of California "No Significant Risk

Level" (NSRL) are unlikely. Oatey strongly encourages the use of proper personal protective equipment (PPE) and ventilation guidelines noted in Section 8 to minimize exposure to these chemicals.

TSCA Inventory: All of the components of this product are listed on

the TSCA inventory.

Canadian WHIMS Classification: Class B, Division 2; Class D, Division 2,

Subdivision B; Class D, Division 2, Subdivision A. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the

information required by the CPR.

SECTION 16 OTHER INFORMATION

NFPA and HMIS:

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None

HMIS Hazard Signal: Health: 2* Flammability: 3 Reactivity: 1 PPE: G

Disclaimer:

The information herein has been compiled from sources believed to be reliable, upto-date, and is accurate to the best of our knowledge. However, Oatey cannot give any guarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.

Material Safety Data Sheet

MSDS # 0078

#0809OI, #0829Oi (All Labels) (1013663)

NFPA Rating: HMIS Rating:

1-0-0 1-0-0-B

ADDRESS (Number, Street, City, State, Zip Code)	4175 Webb Street, Pryor, Okl	ahoma 74361	
MANUFACTURER'S NAME AND TELEPHONE NO.	Red Devil, Incorporated	(918) 825-5744	
TRADE NAME (IF NONE, PUT CHEMICAL)	RD Pro Industrial Grade Heat	: Resistant Silicone - Red	(918) 825-5744 (24 Hrs.)
	SECTION I	the state of the s	* EMERGENCY TELEPHONE NO.

SECTION II - HAZARDOUS INGREDIENTS	%	TLV	PEL	UNITS
Silica** [7631-86-9] (as Amorphous silica, total dust)	11	20	20	mg/m3
Dimethylsiloxane, hydroxy-terminated (70131-67-8)	< 60	NE	NE	
Ethyltriacetoxysilane*** [17689-77-9]	2	10	10	ppm
Methyltriacetoxysilane*** [4253-34-3]	2	10	10	ppm
Polydimethylsiloxane (63148-62-9)	1 - 5	10	10	ppm
Titanium dioxide** (in white product only) - (as nuisance particulate, total) [13463-67-7] Iron (III) Oxide** (1309-37-1)	2 10	10 5	15 10	mg/m3 mg/m3
Non-hazardous ingredients*	< 75	NA	NA	
*Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910). **Inhalation of particulates unlikely due to product's physical state ***Observe limits for acetic acid, formed during curing on exposure to water or humid air. VOC: 3.1%/wt. CARB Compliance: YES. Prop 65 Ingredients: NONE				

	SECTION III -	PHYSICAL DATA	
BOILING POINT (°F)	NE	8PECIFIC GRAVITY (H₂0=1)	1.02
VAPOR PRESSURE (MM Hg.)	NE	PERCENT VOLATILES BY VOLUME (%)	<5
VAPOR DENSITY (AIR=1)	>1	рН	NE
SOLUBILITY IN WATER	Insoluble	EVAPORATION RATE	NA
ADDEADANCE AND ODOD	This is the sale of the sale of		

EARANCE AND ODOR	Thick liquid/sealant	t consistency; slight vineg	jar odor - Red

FLASH POINT (Method used)	>200°F	FLAMMABLE LIMITS	LEL	NE	UEL	NE
EXTINGUISHING MEDIA	Carbon dioxide or foa	m				
SPECIAL FIRE FIGHTING PROCEDURES	No special procedure	s required.				
UNUSUAL FIRE AND EXPLOSION HAZARDS	None known					

NA - Not Applicable

NE - Not Established

UN - Unavailable

SECTION V - HEALTH HAZARD INFORMATION

SYMPTOM/EFFECTS OR OVEREXPOSURE

Eye, nose and throat irritation. Possible skin irritation.

FIRST AID

EYE8

Immediately flush eyes with large amounts of water while holding the eyelids open. Get medical attention if irritation persists.

SKIN

Wipe material from skin with cloth or paper towel, then wash exposed area with soap and water. Get medical help if irritation persists.

INHALATION

Move victim to fresh air. Get medical help if irritation persists.

INGESTION

Contact local poison control center or physician IMMEDIATELY!

SECTION VI - REACTIVITY DATA

STABILITY

Normally stable. Avoid extreme heat

INCOMPATIBLE MATERIALS

Moisture will release acetic acid vapor

HAZARDOUS DECOMPOSITION PRODUCTS

Silicon dioxide, Carbon monoxide, Carbon dioxide, traces of formaldehyde

SECTION VII - SPILL OR LEAK PROCEDURES

PROCEDURES

Wear personal protective equipment (See Section VIII). Clean up with absorbent material.

WASTE DISPOSAL METHOD

Dispose of according to Local, State, and Federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY

Not normally required. If TLV is exceeded, or for symptoms of overexposure, wear a NIOSH-approved respirator for organic vapors.

EYEWEAR Wear safety glasses

CLOTHING/GLOVES

Not normally required; in situations of extended skin contact, neoprene or other chemical resistant gloves are recommended.

VENTILATION

Local exhaust may be necessary under some handling/use conditions.

SECTION IX-SPECIAL PRECAUTIONS

Store in a closed container in dry area. NOTE: Do not wear contact lenses while applying this material, as acetic acid vapor may become trapped under lenses. This product does not contain ingredients listed in Section 313 of SARA Title III and 40 CFR 372.65. This product does not contain carcinogens (at 0.1% or greater) as defined by IARC, NTP or OSHA. PROPER SHIPPING NAME: N/A, HAZARD CLASS: N/A, UN/NA NUMBER: N/A, PACKING GROUP: N/A.

Reviewed By

Larry G. Brandon

VP Technology & General Manager

January 31, 2006

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The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or for the consequences of its use or misuse.



Material Safety Data Sheet

01-JAN-2003

SpecSeal® Firestop Putty

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

PRODUCT NAME.....SpecSeal® Firestop Putty

CHEMICAL FAMILY.....Mixture

Company Identification

MANUFACTURER/DISTRIBUTOR

Specified Technologies, Inc. 200 Evans Way Somerville, NJ 08876

PHONE NUMBERS

Product Information : 1-908-526-8000 Emergency : 1-800-255-3924

COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME

Proprietary mixture

CAS NUMBER

HAZARDS IDENTIFICATION

***********EMERGENCY OVERVIEW*******

* Possible skin and eye irritant. Red solid. *

Potential Health Effects:

EYE: Contact may cause irritation and redness.

SKIN: Contact may cause irritation and redness.

INGESTION: Relatively non-toxic.

INHALATION: Irritation of the nose, throat, and lungs may result from over-exposure to vapors or mist from heated material.

CHRONIC (CANCER) INFORMATION: Not classified as carcinogenic.

LONG TERM TOXIC EFFECTS: None known.

FIRST AID MEASURES

First Aid

INHALATION: Remove to fresh air. **SKIN CONTACT:** Wash thoroughly.

EYE CONTACT: Irrigate eyes with running water for at least 15 minutes. Get medical attention if irritation develops.

INGESTION: None applicable.

FIRE FIGHTING MEASURES

FLASH POINT >163 deg. C based on most volatile component.

SPECIAL FIRE FIGHTING PROCEDURES:As for surrounding fire.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

HANDLING AND STORAGE

Store under ambient conditions. No special handling required.

EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION REQUIREMENTS: Safety glasses/goggles.

SKIN PROTECTION REQUIREMENTS: Gloves.
RESPIRATOR REQUIREMENTS: None.
VENTILATION REQUIREMENTS: None.

Exposure Guidelines

None.

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM	Red solid with minimal odor
SPECIFIC GRAVITY	
PERCENT VOLATILES	none
SOLUBILITY IN WATER	Verv slight

STABILITY AND REACTIVITY

STABILITY:	This is a stable material.
CONDITIONS TO AVOID	Storage >55 deg. C
HAZARDOUS POLYMERIZATION:	
INCOMPATIBILITIES:	None special.

TOXICOLOGICAL INFORMATION

Mixture not tested but based on components:

May be irritating to skin and eyes and may aggravate existing skin and eye conditions. Irritation of the nose, throat, and lungs may result from over-exposure to vapors or mist from heated material.

None of the components are listed as carcinogens.

ECOLOGICAL INFORMATION

No data. Not anticipated to be environmental hazard.

DISPOSAL CONSIDERATIONS

Waste Disposal:

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

TRANSPORTATION INFORMATION

DOT - not regulated.

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status: Article.

Section 313 Supplier Notifications.

This product contains no toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

OTHER INFORMATION

NPCA-HMIS Rating

Health: 1

Flammability: 0

Reactivity : 0

Personal Protection rating to be supplied by user depending on use conditions.

STATE RIGHT-TO-KNOW LAWS

No substances on the state hazardous substances list, for the states indicated below, are used in the manufacture of products on this Material Safety Data Sheet, with the exceptions indicated. While we do not specifically analyze these products, or the raw materials used in their manufacture, for substances on various state hazardous substances lists, to the best of our knowledge the products on this Material Safety Data Sheet contain no such substances except for those specifically listed below:

SUBSTANCES ON THE NEW JERSEY WORKPLACE HAZARDOUS SUBSTANCE LIST PRESENT AT A CONCENTRATION OF 1% OR MORE (0.1% FOR SUBSTANCES IDENTIFIED AS CARCINOGENS, MUTAGENS OR TERATOGENS): NJTSRN-SSP

WARNING: SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER: Possible traces of formaldehyde and acrylonitrile.

WARNING: SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM: None known.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the data compiled. However, no representation, warranty, or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur form the use of this information.

Responsibility for MSDS:

Specified Technologies, Inc. 200 Evans Way Somerville, NJ 08876



Material Safety Data Sheet

01-JAN-2003

SpecSeal® TYPE LCI SEALANT

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

PRODUCT NAME......SpecSeal® LCI Sealant

CHEMICAL FAMILY......Mixture

Company Identification

MANUFACTURER/DISTRIBUTOR

Specified Technologies, Inc. 200 Evans Way Somerville, NJ 08876

PHONE NUMBERS

Product Information : 1-908-526-8000 Emergency : 1-800-255-3924

COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME

Proprietary mixture

CAS NUMBER

HAZARDS IDENTIFICATION

**********EMERGENCY OVERVIEW********

* Possible skin and eye irritant. Pale, red paste. *

Potential Health Effects:

EYE: Contact may cause irritation. **SKIN:** Contact may cause irritation. **INGESTION:** Relatively non-toxic.

INHALATION: Irritation of the nose, throat, and lungs may result from over-exposure to vapors or mist.

CHRONIC (CANCER) INFORMATION: Not classified as carcinogenic.

LONG TERM TOXIC EFFECTS: None known.

FIRST AID MEASURES

First Aid

INHALATION: Remove to fresh air. **SKIN CONTACT:** Wash thoroughly.

EYE CONTACT: Irrigate eyes with running water for at least 15 minutes. Get medical attention if irritation develops.

INGESTION: None applicable.

FIRE FIGHTING MEASURES

Not a fire hazard.

SPECIAL FIRE FIGHTING PROCEDURES:As for surrounding fire.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

HANDLING AND STORAGE

Store under ambient conditions. No special handling required.

EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION REQUIREMENTS:......Safety glasses/goggles.

SKIN PROTECTION REQUIREMENTS: Gloves. RESPIRATOR REQUIREMENTS: None.

below the TLV.

Exposure Guidelines

Exposure Limits

PEL(OSHA): Particulates (Not Otherwise Classified) 15 mg/m3, 8 Hr. TWA, total dust 5 mg/m3, 8 Hr. TWA, respirable dust

TLV(ACGIH): None Established

PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT 100 deg. C

STABILITY AND REACTIVITY

TOXICOLOGICAL INFORMATION

Mixture not tested but based on components:

May be irritating to skin and eyes and may aggravate existing skin and eye conditions.

None of the components are listed as carcinogens.

ECOLOGICAL INFORMATION

No data.

DISPOSAL CONSIDERATIONS

Waste Disposal:

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

TRANSPORTATION INFORMATION

DOT - not regulated.

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status: Reported/Included.

Section 313 Supplier Notifications.

This product contains no toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

OTHER INFORMATION

NPCA-HMIS Rating Health: 1 Flammability: 0 Reactivity: 0

Personal Protection rating to be supplied by user depending on use conditions.

STATE RIGHT-TO-KNOW LAWS

No substances on the state hazardous substances list, for the states indicated below, are used in the manufacture of products on this Material Safety Data Sheet, with the exceptions indicated. While we do not specifically analyze these products, or the raw materials used in their manufacture, for substances on various state hazardous substances lists, to the best of our knowledge the products on this Material Safety Data Sheet contain no such substances except for those specifically listed below:

SUBSTANCES ON THE NEW JERSEY WORKPLACE HAZARDOUS SUBSTANCE LIST PRESENT AT A CONCENTRATION OF 1% OR MORE (0.1% FOR SUBSTANCES IDENTIFIED AS CARCINOGENS, MUTAGENS OR TERATOGENS): NJTSRN-LCi300

WARNING: SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER: Possible traces of formaldehyde, ethyl acrylate, acetaldehyde, acrylamide and acrylonitrile.

WARNING: SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM: None known.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the data compiled. However, no representation, warranty, or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur form the use of this information.

Responsibility for MSDS:

Specified Technologies, Inc. 200 Evans Way Somerville, NJ 08876





MATERIAL SAFETY DATA SHEET

GENERAL INFORMATION

PRODUCT NAME OR NUM		appears o	on label)		CATALOG NU			
					All "30" Seri			
IDEAL INDUSTRIES, INC. (815) 895				EMERGENCY (815) 895-5		HONE NO.		
ADDRESS (Number, Street,			e)		<u> </u>			
Becker Place, Sycam	iore, IL 6	0178						
HAZARDOUS MATERIAL DESI	CRIPTION,	PROPER S	HIPPING NAME, HAZARD CL	ASS, HAZARD CLASS NO.	, HAZARD ID NO. (4	49 CFR 1	72.101)	
None								
CHEMICAL DESCRIPTION				FORMULA				
Petroleum-Based Mixt	ure			Proprietary				
	т		SECTION I - IN	IGREDIENTS		4		
CAS REGISTRY NO.	%W		CHEMICAI	L NAME(S)*		Listed as a carcinogen in NTP, I ARC or OSHA 1910(z) (specify)		
9003-29-6	<80	Polyb	outene			No		
7440-66-6	20	Zinc [Dust			No		
7631-86-9	<5	Silico	n Dioxide			No		
	 	-					-110	
								
	-							
· · · · · · · · · · · · · · · · · · ·								
			SECTION II - PH	VEICAL DATA				
OILING POINT			SPECIFIC GRAVITY (H ₂ O=1)		PERCENT VOLAT	II E BY V	OLUME (%)	
>500°F	°C		1	1 04			NF	
OLUBILITY IN WATER Mode			pH≃ 65-8		PERCENT SOLID		400	
PPEARANCE AND ODOR	eraie		I nn-r	1 U	WEIGHT (%)	LIQUID	100 SOLID GEL	
			ste, mild odor			GAS	S PASTE	
			ON III - FIRE AND EX					
LASH POINT 310 F		method use	ed C.O.C	FLAMMABLE LIMITS	LEL		UEL	
XTINGUISHING MEDIA				<u> </u>	N.E.		N.E.	
			Use dry chemical, carbo	on dioxide or foam.				
PECIAL FIRE FIGHTING PROC		ntained r	respiratory protection sho	ould be provided for fi	re fighters. Kee	ep fire e	xposed	
containers cool with wa	iter.	-				-		
NUSUAL FIRE AND EXPLOSIO	N HAZARDS	3					T-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	
		Water o	or foam may cause a froi	thing reaction. (Wate	r reacts with zind	c dust).		
None of the chemical raw materia	als container	in this form	nulation are considered hazard	lous under the Federal Haza	ards Communication	Standard	1 29 C. F. R 1910.1200	

			SECTION IV - HEALTH	HAZARD INFORMATION	
EFFECTS OF OVE	REXPOSURE - Cond		Avoid		
THRESHOLD LIM	T VALUE	None	iormany expected. Opon pr	olonged contact, may cause lemporary eye discomfort.	
DOLLARY DOUTE	C OF FUTDY I-L-(-)			oxide as dust: 10mg/m.	
	S OF ENTRY Inhalati		Skin Contact Other (specify)		
SKIN CONTACT:	ST AID PROCEDURE	-	Wash with soan and water	for 15 minutes	
EYE CONTACT:			Flush with water	er for 15 minutes	
INGESTION:					
		mauc		ician or local poison control center.	
	UNSTABLE	ŢĊ	ONDITIONS TO AVOID	EACTIVITY DATA	
STABILITY	OT LDLC		Av	oid conditions of moisture or high humidity.	
· · · · · · · · · · · · · · · · · · ·	STABLE	X			
INCOMPATIBILITY	(materials to avoid)		Avoid strong oxidizers	, strong acids and water.	
HAZARDOUS DEC	OMPOSTION PRODI		Excessive heat and burning	may release oxides of carbon.	
	MAY OCCUR	~~~`i	CONDITIONS TO AVOID	may release oxides of carbon.	
HAZARDOUS POLYMERIZATION	v			None	
	WILL NOT OCCUP	<u> X</u>			
STEPS TO BE TAK	(EN IF MATERIAL IS	RELEAS		ND LEAK PROCEDURES	,
	CHI MATERIALIO	NELLAG		ovel or vacuum spilled material. Clean up spills immediate	ly.
Use absorben					
WASTE DISPOSAL	. METHOD	Con	nnly with Federal state and	local regulations for solid landfill.	
CERCLA (Superfun	d) REPORTABLE QU			regulations for solid failuris.	
RCRA HAZARDOU	S WASTE NO. (40CF	R 261 3		Required	
COIN TIREMIDOU	0 HAOTE NO. (4001	11 201.04	•	Required	
VOLATILE ORGAN	IC COMPOUND (VOC	C) (as pa	ckaged, minus water)	palaulated	
Theoretical	ib/gal N/A		120 y/i, t	Palculated Analytical lo/gal N/A	
THEOretical	_ 10/9ai 14/7		PTION MILE DEDOGNAL I		
RESPIRATORY PR	OTECTION (specify t		TION VII - PERSONAL I	PROTECTION INFORMATION	
				se NIOSH respirator	
VENTILATION L	CAL EXHAUST (Spe		·		
Į.	ECHANICAL (General Recommended in		zean	OTHER None	
PROTECTIVE GLO None normally n	v∈s (specify type) eeded -Neoprene if ne	сеѕѕагу	EYE PROTECTION (specify type	s) Safety glasses or splash goggles.	
OTHER PROTECTI	VE EQUIPMENT		Evo fountain in work o	area is recommended.	
			•	CIAL PRECAUTIONS	
PRECAUTIONS TO	BE TAKEN IN HAND	LING AN		CIAL PRECAUTIONS	
			Store in dry conditi	ons at temperatures between 40 - 120 F.	
OTHER PRECAUTI	ONS		Keep away from child	fren, infants and pets.	
				IONAL INFORMATION	
This produ	ct contains th	ne fol		are subject to the reporting requirements of	
	of EPCRA:				
)-66-6, Zinc Dı				
V/A = Not App	licable, N.E. = I				
	D.14.71		S MATERIAL SAFETY D	ATA SHEET PREPARED BY:	
	mes R. MacMu		111 8	SIGNATURE	
	rector, Corpora	te Qua	ality Assurance	Jamo R. MeeMurds	
DATE 03	3/10/2006			"	



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: DBY/DBR DIRECT BURY SPLICE KIT (COMPOUND)

MANUFACTURER: 3M

DIVISION: Electrical Markets Division

ADDRESS: 3M Center

St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 01/25/2005 Supercedes Date: 08/26/1996

Document Group: 10-9181-8

Product Use:

Specific Use: MOISTURE SEALING

SECTION 2: INGREDIENTS

 Ingredient
 C.A.S. No.
 % by Wt

 mineral oil
 64742-54-7
 70 - 90

 PETROLEUM SULFONATE, CALCIUM SALT, OVERBASED
 68783-96-0
 10 - 30

SECTION 3: HAZARDS IDENTIFICATION - 4

3.1 EMERGENCY OVERVIEW

Odor, Color, Grade: Light colored grease-aromatic odor.

General Physical Form: Solid

Immediate health, physical, and environmental hazards:

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

Skin Contact:

Prolonged or repeated exposure may cause:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Inhalation:

No health effects are expected. Vapors from heated material may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion:

No health effects are expected.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Wash affected area with soap and water. If signs/symptoms develop, get medical attention.

Inhalation: If signs/symptoms develop, remove person to fresh air. If signs/symptoms persist, get medical attention.

If Swallowed: No need for first aid is anticipated.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature No Data Available

Flash Point 204 °C [Test Method: Closed Cup] [Details: MITS data]

Flammable Limits - LEL No Data Available
Flammable Limits - UEL No Data Available

5.2 EXTINGUISHING MEDIA

Ordinary combustible material. Use fire extinguishers with class A extinguishing agents (e.g., water, foam). Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: See Hazardous Decomposition section for products of combustion. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Not applicable. No unusual fire or explosion hazards are anticipated.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6 PAGCIDENT AT PREPEASE MEASURES

Accidental Release Measures: Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Collect as much of the spilled material as possible. Clean up residue with an

appropriate organic solvent. Read and follow safety precautions on the solvent label and MSDS. Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Avoid eye contact. Do not mix with oxidizers to avoid risk of explosion. Avoid contact with oxidizing agents.

7.2 STORAGE

Store away from areas where product may come into contact with food or pharmaceuticals. Store out of direct sunlight. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL/PROTECTION

8.1 ENGINEERING CONTROLS

Provide appropriate local exhaust when product is heated.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

During heating:

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Indirect Vented Goggles.

8.2.2 Skin Protection

Gloves not normally required.

8.2.3 Respiratory Protection

During heating:

Avoid breathing of vapors.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing

Not applicable.

8.3 EXPOSURE GUIDELINES

None Established

SECTION'S PHYSICAL AND CHRITICAL PROPERTIES.

Odor, Color, Grade: General Physical Form:

Autoignition temperature

Flash Point

Flammable Limits - LEL Flammable Limits - UEL

Boiling point

Vapor Density

Vapor Pressure

Specific Gravity

ρĤ

Melting point

Evaporation rate

Volatile Organic Compounds VOC Less H2O & Exempt Solvents Light colored grease-aromatic odor.

Solid

No Data Available

204 °C [Test Method: Closed Cup] [Details: MITS data]

No Data Available No Data Available

>=95 °F [Details: MITS data]

Not Applicable

<=27 psia [@ 131.0000000000 °F] [Details: MITS data]

1.02 [Details: MITS data]

Not Applicable No Data Available

Not Applicable No Data Available No Data Available

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Strong oxidizing agents

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide Carbon dioxide Oxides of Sulfur Condition

During Combustion During Combustion During Combustion

BSECTE (ONTE TX OXICO) EO GICATE INFORMATION A

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of waste product in a facility permitted to accept chemical waste. As a disposal alternative, incinerate in an industrial or commercial facility.

EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

80-6101-5458-7, 80-6105-3074-5, 80-6105-3148-7, 80-6105-9435-2, 80-6105-9437-8, 80-6105-9683-7, 80-6105-9685-2, 80-6112-6229-8, 80-6112-6230-6, XT-0042-1943-9

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REQUEATORY INFORMATION : **

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - No Delayed Hazard - No

STATE REGULATIONS

Contact 3M for more information.

CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

Contact 3M for more information.

Additional Information: All ingredients are on the TSCA, EINECS, MITI, AICS AND CDSL inventories.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

ESTRETHEN RECORDER TO THE PROPERTY AND T

NFPA Hazard Classification

Health: 1 Flammability: 1 Reactivity: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Reason for Reissue: The MSDS has been revised because 3M has adopted the 16-section ANSI/ISO format. The potential hazards of the product have not changed. We encourage you to reread the MSDS and review the information.

No revision information is available.

DISCLAIMER: The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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3M MSDSs are available at www.3M.com



THE EZ WAY

1250 Birchwood Drive Sunnyvale, CA Ph (408)734-4282 Fx (408)734-0798 10636 Industrial Avenue Roseville, CA Ph (916)218-3800 Fx (916)218-3801

Company Quality Statement

The quality goal of EZ Electric is to provide electrical related services throughout central California that are second to none in terms of professionalism, price competitiveness and quality. In performing these services, provide a mutually beneficial environment for our customer, employee and supplier while at the same time provide a safe work place for our employees.

E Z Electric's commitment to quality will be accomplished by using the following guidelines:

- · Focusing on satisfying customers' needs;
- Compliance with applicable construction codes, regulations, safety requirements, and good workmanship practices;
- · Fulfillment of contract requirements in their entirety;
- Direction of work crews by qualified job foremen;
- · Performance of inspections by qualified inspectors; and
- Continuous quality improvement and the prevention of defects.

Quality Responsibilities

Quality is everyone's responsibility. Everyone is personally responsible for:

- · Adhering to quality system policies and procedures;
- Using only approved materials and construction procedures;
- · Ensuring that materials and equipment are in good condition; and
- Ensuring personal safety and the safety of others and stopping work if conditions are unsafe.

Foremen have additional responsibilities for ensuring that:

Ensuring the correction of correction items.

- Crew members are capable of performing assigned tasks; and
- Their job meets government regulatory and code requirements, builder requirements and contract specifications, company quality standards and specifications.

Project and Field Manager responsibilities include all of the above as well as

•	Conducting j	ob insp	ections	and	accurately	recording	job	activity;	and
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PRESIDENT	DATE	QUALITY REPRESENTATIVE

EZ WAY TO WIRE

The EZ way to wire.....

This information is designed to help our new employees become familiar with the way EZ Electric wires. We are not so different from other contractors, we just strive to do it right the first time.

We have divided this pamphlet into three distinct sections:

- 1. Riser installation
- 2. Rough wiring
- 3. Trim wiring

As with everything at EZ, if something on the following pages does not make sense to you, please feel free to ask. Communication is the answer.

Soooo.....without further ado, here we go.....

RISER INSTALLATION

Riser; A riser is a conduit run through the foundation footing to allow the utility company to run wire to our service panels. All single family homes within PG&E's jurisdiction use 3" risers, minimum. Apartments and condominiums are something else, depending upon the number of meters, there can be up to 5-5" risers. Apartments and condominiums must be dealt with separately.

A standard riser consists of 5' of 3" PVC with a long sweep elbow attached to it.

Telephone and television risers are normally 2" PVC. Make sure there is enough separation between the utility riser and the telephone and television risers so they end up in separate stud bays.

When setting risers, first establish the location of the electrical services on the house. Then it is best to take a look at the structural plans to identify any posts or hold downs that we need to stay away from with our electrical risers. As electricians, most of use are not familiar with structural plans so it is a good idea to meet with the superintendent to help us with this task. If he or she cannot or will not help, contact your field or project manager. Once the location of the risers is layed-out on the form, the elevation of finish grade should be established. Normally it is about 8" from the top of concrete. The risers should be dug out 24" deep. Install riser with tape on both ends in a straight up and down position with the sweep down in the dirt pointing towards the street at about a 45 degree angle. Then secure risers in place using tie wire, wood, screws and nails etc. Then fill the hole back with dirt, careful not to get dirt in concrete footings. It is a good idea to tie a piece of wood or rebar across all three risers about 36" above top of form to help support the risers, mounting a panel on top of a leaning riser is very difficult. At this time it is a good idea to talk to the foundation contractor and show him where to put the ufer ground. It should be about 5" away from your electrical riser, under the meter main. If you let the foundation contractor or the superintendent decide where it should go you may not be happy with its location. If we are contracted to install a ground rod you know where to put it (see meter main frame detail). After foundations are poured it is a good idea to return to the job a few days later once the framing

contractors layout person gets started and discuss meter main, TV and telephone service can location needs (use the attached meter main frame detail for framing instruction when meeting with the framer). The digging of the risers should be coordinated by the foreman or field manager with the foundation contractor. If this is not possible, they will have to be hand dug. The shop has an electric hammer and generator for this purpose.

It is most productive to set as many meter mains at once as possible, with the tools out, doing one after the other. It becomes systematic. Meter mains should be installed before paper or lathe to avoid being back charged by the stucco contractor for tearing up their work and so that the meter mains flanges get covered by waterproofing paper and lathe. TV and telephone boxes should be installed at the same time as meter mains. Some houses have sheer on the walls at meter main locations and some do not. Once the sheer is installed or if the house does not get sheer its time to install meter mains (see picture 1).

ROUGH WIRING

Rough wiring is broken up into five distinct functions; layout, boxing, boring, pulling and makeup. We feel that the layout of a house is the most important. Layout is to be done complete to current building codes, title 24 requirements etc. Layout should always be done 100% complete. If there are questions that arise during layout, a list should be kept so they can be answered right away and the layout can be complete. All layout should be done on walls for receptacles, switches, transformer, chime, wall light and anything else that goes on the walls. All layout for can lights, smoke detectors and ceiling mounted fixtures shall be written on floor. Layout for kitchen cabinet breaks from measurements on as-builts should also be layedout on floor or wall. Layout for outside lights should be done and then transferred to inside so hole saw can be used next to stud for 3.0 nail on whenever possible. Make sure to leave plenty of room for trim around windows and doors. It is a good idea to wait to layout homeowner options at one time that way you are only focused on them and nothing gets missed. After all layout is done give the entire house the once over to make sure nothing got missed.

Following is a list of heights that will be used in all EZ's houses unless otherwise specified.

NOTE: all of these measurements are from the floor, unless otherwise noted. Make sure that all boxes are mounted at the specified height. There is nothing worse than to walk into a finished kitchen and find our outlet boxes breaking the tile line at different heights....we care, even if the contractor doesn't.

METER MAIN: 48" to 58" to center of meter socket from finish grade single family homes for a 200amp main

SUBPANEL: 5' to 6' to main lugs. REMEMBER: sub panels cannot be installed in closets and there must be 3' of working space in front of the panel and a 30" wide working space

TELEPHONE CAN: in next possible stud bay

SWITCHES: 48" to top of box

RECEPTACLES: 16" to top of box

KITCHEN OUTLETS: 50" to top of box (verify with job superintendent)

RANGE (DROP IN): 24" to top of 4sq. box, install extension box on rough

RANGE (FREE STANDING): 4sq. box nailed to bottom plate, check specifications for location of box in opening, install 2-gang ring on rough, check manufacturer specifications

COOKTOP: 24" to bottom of junction box

BUILT-IN OVEN: stub out at 76" not behind oven, install 4 sq. on trim (check cabinet drawing)

KITCHEN ISLAND CABINET: wiring has to be brought up through the floor on rough, do not leave it for the trim man

MICROWAVE: outlet in upper cabinet above the unit on right side, check for vent location on microwave hoods. Stub at 80" in center of upper cabinet on rough

DISHWASHER/DISPOSAL: outlet under sink, 12" to 24" to top of box, hold to dishwasher side

TRASH COMPACTOR: outlet cannot be behind the unit, it must be accessible, 24" to top of box on either side of unit, in open cabinet <u>not behind drawers</u>

BATHROOM OUTLETS: 46" to top of box (check with cabinet drawings, and superintendent, keep out of tile)

BATHROOM WALL MOUNT FIXTURES: from 84" to 88" from floor to center of box, centered over sink, unless otherwise noted. Always check mirror height

WASHER: 48" to top of box, stay away from faucets

DRYER: 36" to top of 2-gang box

FURNACE: junction box on left side above unit stub switch leg low 3" above furnace platform.

CHIME & ADDRESS LIGHT TRANSFORMER: put in single gang box above sub panel in garage, or in coat closet above shelf approx. 80" or as per plan

OUTSIDE RECEPTACLE: same height as the receptacle outlets in room behind it (check exterior elevations)

ADDRESS LIGHTS: 12" below light fixture, front door side of garage front or as per plans

REMEMBER: all light outlets and flush cans must be centered as per plans

The above heights are to be used to assure that all EZ houses are wired the same.

Make sure you have boxed the house complete. Mistakes are made simply because a box was not nailed up.

All entry, stairwell, dining and nook light outlets shall be metal for all custom homes. Check fixture weight for tract homes.

We have found that many wiremen are not well versed in NEC. That book is our bible. It is important that at your earliest convenience you take a code class. Many are offered, please contact you project manager if you need help locating one.

Find out about U.B.C. requirements regarding smoke detectors. Keep 36" away from air registers and no more than 8" from ceiling peak.

Boxes, can lights and fan housings should be spread throughout house complete. Cutouts should be started right away so the boxes can be put up with the rest of the boxes. Once the sheer cutouts are done the holes for light boxes should be done with the 3 5/8" hole saw. Boxes should be put up level and at the correct depth for sheetrock, sheer and sheetrock, double sheetrock and at some kitchen counter tops back splash to accommodate for tile. Making sure that the unit is 100% complete is very important, it helps the person drilling so he can drill 100% and saves time from going back and doing it later.

KITCHEN

Two 20 amp appliance circuits, receptacle outlets on the counter top evenly divided between the 2 circuits. Dining room and nook receptacles must also be on these circuits. Circuits must be balanced.

Counter top wider than 12" must have receptacle, receptacle spacing on kitchen counters is 2' from opening and then every 4' max. between each receptacle. Openings are sinks, ovens, cooktops, refrigerators, etc. All kitchen counter top receptacles must be GFI protected.

RECEPTACLE SPACING

Any wall space 2" or longer, except hallway and entry, must have a receptacle. Measurement starts at door jam. Behind a door is considered wall space.

Measuring along wall...within 6' from opening, ie. Doorway, fireplace, wall cabinet, etc., and every 12' there must be a receptacle.

Hallways of 10ft. or more must have receptacle.

One lighting circuit for every 500 sq. ft. As a rule of thumb, no more than 10 to 14 outlets per circuit.

REMEMBER; all closets light fixtures must be 12" from the shelf, unless flush can with enclosed trim or fluorescent then 6" from the shelf.

These are the most common items to remember. There are obviously many more that need to be learned.

BORING

Boring is a tough topic to cover, without actually using the hands on method. But there are a couple of things that need to be pointed out. Always keep your holes to the center of the stud. When boring ceiling joists, remember to keep your holes within 3 times the width if the joist from wall, and try to stay as close to the middle as possible. Never bore a gluelam without written permission. Always check plans for a boring schedule before you start drilling.

Drilling is a very important part of roughing a house and by drilling a unit complete you can save a lot of time. Each circuit should be drilled starting at the homerun and then complete the circuit. Always complete the circuit before starting the next. Make sure to go over a list of circuits to drill including TV and telephone, chime, address light, bond wire, subfeed, A/C, garage door sensors etc. Before drilling any large beams or questionable areas make sure to check Boring schedule in plans or manufactures recommendations. Sometimes you can ask the framing foreman for documentation on the products they are using on the job and inside that documentation will be do's and don'ts for drilling their product. If you are

unable to find information contact your field manage before drilling any questionable areas.

Now that you have boxed and bored the house <u>complete</u>, lets start pulling the wire....

Use 3 wire homeruns (HR) when ever possible (<u>not</u> on arc fault circuit). Dishwasher/disposal: 12/3 HR make-up at switch, not at receptacle.

Trash compactor: 12/2 HR

Microwave: 12/2 HR

Furnace: 12/2 HR leave long enough tail to reach furnace on trim

(sleeve romex with ½ flex on rough if possible)

Washer: 12/2 HR

Dryer: 10/3 HR

Cooktop 4 burner: 10/3 HR (check manufacturers loads)

Cooktop 6 burner: 8/3 HR (check manufacturers loads)

Range: 6/3 alum. HR (check manufacturers loads)

Single oven: 10/3 HR (check manufacturers loads)

Double oven: 6/3 alum. HR (check manufacturers loads)

Sub panel: 2/3 alum. HR for 100amp, 1/0 alum. For 125 amp, 4/0

alum. For 200 amp

A/C: as per nameplate of unit

Jacuzzi tub: 12/2 HR, install box and trim on rough. Install a switch at access opening as a disconnect for the motor. Twist black and whit wires together in sub panel to show for GFI breaker. A GFI

receptacle can be used in place of breaker if access opening is accessible from inside of house. Bond motor with #8 copper to cold water clamp at cold water must be accessible.

All makeup to be in switches and receptacles only. Only switchleg makeup in light outlets. Try to keep all makeup out of cabinet outlets ie. Micro, dishwasher, etc.

Receptacle makeup shall be: from left to right, bare, white, black, folded back into the box together, with tails to front.

REMEMBER: mark all switch-legs

twist travelers together on 3 ways GFI twist load wires together

3-way switches: power into first switch outlet, three wire between (black and red travelers), switch leg out of second switch outlet.

GFI (Ground Fault Interrupter): bathroom receptacles on dedicated 20amp circuit, all receptacles protected by GFI. Exterior weather proof to be pulled from closest general lighting circuit with GFI device at each location. Garage receptacles protected by GFI installed in garage pulled from closest general lighting circuit

The chime and address light are wired with 18/2 jacketed bell wire or phone wire. This wire is easy to damage, so never drive staples tight over it.

On some jobsites, we also run the TV and telephone wire. They have to be handled the same as bell wire. Too many service calls have been generated by shorted out bell wire and telephone wire. All TV runs are homerun unless specified differently.

Being complete is key when pulling wire or laying someone out on pulling wire. Lay them out on a complete circuit and when they are finished inspect to ensure it is complete before moving on. Always pull wire from a wire spinner to prevent wire from becoming twisted. Pull wire to box and put in box marking wire with correct marking ie. Switch leg, line, load etc. before continuing. When pulling wire to smoke detectors, can lights and any thing high, the wire should be pulled and the make-up should be done before

moving on. All wire should be pulled including TV and telephone, bond wire, subfeed, bell wire, etc. The meter main and sub panel should be made up before starting makeup so you can use your bell set to ring circuits as you make up.

Grounding is probably one of the most poorly understood aspects of wiring. Its not that tough. All metal boxes in a house must be grounded. Every metal box within our system must have, either a ground lug attached to the back of the box with a green ground screw, or a green ground screw with a ground wire to attach all ground wires to.

The service ground is run from the main panel directly to the ufer ground, then to the water piping system and the gas piping system. Make sure ground wire runs through phone service box.

125amp main #6 bare copper 200amp main #4 bare copper

All ground clamps must be accessible, either clamped onto the piping on the exterior of the building, at the water heater or in the ceiling or walls with a 2-gang ring. REMEMBER: rings installed in the ceiling of a garage fire wall require a metal cover on trim.

Garage door opener outlets: single gang box on rough with garage door opener sensor wires wrapped around nail next to box.

Keep wiring simple, nothing fancy. Ring-out completely, ie. Range runs, oven runs, chime wiring, phones, etc. Ring flush cans simply by splicing thru at switches and shorting out sockets with your tape measure. Ring 3-way switches by connecting the common and one traveler together at one end.

There must be approx. 1 ¼" of wood left between the edge of the stud and our wire after boring. If there is not, it must be plated. A simple rule: "when in doubt, plate it". This could save us a re-inspection.

Attic work: some houses will have the furnaces in the attic. If this is the case, complete all work on the rough, ie. hook up the furnace, install the keyless, lamp, etc.

REMEMBER: all aluminum terminations must have <u>NOALOX</u> on them, <u>no exceptions.</u>

Be sure rough is complete:

- 1. All boxes are installed
- 2. All make-up complete
- 3. Sup panel: all grounds and neutrals must be terminated on there separate busses, hot wires twisted together for ringing purposes. ALL CIRCUITS MUST BE MARKED.
- 4. Main panel: all grounds and neutrals terminated on same buss, main breaker installed and all holes filled.
- 5. All switch rings installed
- 6. Building totally rung out

Make one final walk through, clean up your mess and look for anything that you could have <u>possibly</u> missed. It's going to be tough running that missed home run after sheetrock

TRIM WIRING

Now comes the final phase, trim. If the person who roughed the house did his job, this is going to be a piece of cake.

Trimming complete is a very important step, it can make or break a job. You can lose all that time you spent dong a good job roughing by coming back time after time putting in trim. Gather material at storage, make sure you get everything. Spread entire unit making note of anything missing. After spreading material, connect bell set, if nothing rings that is a good sign. If there is a ring, go to sub panel and identify circuit ringing and fix it. Start trimming, send one person to gather missing items from storage. If you leave spreading material to inexperienced workers, you will have someone back and forth to storage all day long. When trimming, you should complete room by room, completing one room before starting the next. If someone doesn't know how to do something, take the time to show them. Some like to save fixtures for last, this is a personal preference thing. If there is enough manpower, it is a good idea to do fixtures at the same time as the rest of the house so things can be 100% when you exit the room.

Plate screws should be vertical in all plates.

Switched plugs: turn receptacle upside down (ground hole up). Don't forget to <u>break the tab</u> on the <u>hot side</u> (bottom half switched). All outlets on outside walls must be gasketed.

Do not install anything that is broken, someone is going to have to go back and replace it. Too much time lost.

Caulk all exterior fixtures and panels. Label legibly all service and sub panels, so that anyone can read it. This can also prevent a turndown. Use EZ Electric's sub panel label.

Dishwasher/disposal breakers and any breakers controlling 2 circuits on the same plug. Must have tie bar.

Jacuzzi circuit must be on GFI breaker or plugged into GFI receptacle. 3-wire homeruns must be split between phases. If you don't understand what that means, ask your forman or field manager. Install larger amp breakers at bottom of sub panel for heat displacement. Fill sub panel with smaller amp breakers in the higher spots.

Metal blank covers on ufer and ground clamps must be clearly labeled with permanent marking pen in Dublin.

Put the GFI stickers on all applicable outlets.

Place all smoke detector and GFI literature behind device (unless otherwise directed).

Before you walk away: make sure everything is installed look behind every door

look in closets
look in all cabinets
make sure the panels are labeled
straighten all plates
make sure screw slots are vertical
leave the house as you found it
put your trash in the dumpster or designated trash
area

HOT CHECK is when you check to see if everything is working properly and that all installations are of good quality, everything is level, nothing loose etc. Check everything 100%. Fill out EZ Electric Trim & Hot Check Form.

I'm sure there have been things that have been missed in this pamphlet. So you can be assured that it will be updated, but remember that this is only a guide. It is up to you, the wireman, to have the pride in your own workmanship to produce a product that we can all be proud of.

Good Luck,

EZ Electric

EZ Electric

"L" SANTOL



MEMORANDUM

January 16, 2012

RE: EZ Electric Employee Portal

Dear New EZ Electric Employee:

You have been granted access to a secure employee portal on our company internet site. Once logged in, you will be allowed to read/download company newsletters, change your mailing address, sign up for direct deposit, etc. As the site grows, you will be able to download company information/documents and watch training videos.

Attached are the instructions on how to access the Employee Portal.

If you have any questions or need assistance, please contact me and I will assist you.

Thanks!

Regards,

Tanya Martin-Johnson Controller EZ Electric 10636 Industrial Ave Roseville, CA 95678 916-218-3804 (direct) 916-218-3824 (fax) tmartin@ez-electric.com



EZ Electric Employee Portal Instructions

The employee portal is located at: www.ez-electric.com

- 1) Select Employee Central
- 2) Select Login
 - Your user name will be the first initial of your first name followed by your entire last name
 - o Example: Tanya Martin = tmartin
 - Your password will be the same as the above but add the last 4 digits of your Social Security number
 - o Example: tmartin1234
- 3) Select Login

Once you are in the portal, if you would like to change your password you may do so by:

- 1) Locating your username in the upper left hand corner of the page, select Edit My Profile
- 2) Under the "About Yourself" section, locate New Password
- 3) Enter your new password in the first box
- 4) Enter your new password again in the second box
- 5) Select Update Profile

If you don't have a company email address and would like to provide us with your personal email address you may do so by:

- 1) Locating your username in the upper left hand corner of the page, Selected Edit My Profile
- 2) Under the "Contact Info" section, locate email
- 3) Delete the email address currently store and enter your personal email address
- 4) Select Update Profile

Further Assistance:

If you have any questions or need assistance with the company portal, please contact Tanya Martin at 916-218-3804 or tmartin@ez-electric.com