## 1. PRODUCT & COMPANY IDENTIFICATION

| | | |
|---|---|---|
| 1.1 | Product Name: | **CAIG EQUIPMENT CLEANER, (P/N CL-ECP)** |
| 1.2 | Chemical Name: | NA |
| 1.3 | Synonyms: | CAIG Equipment Cleaner |
| 1.4 | Trade Names: | CAIG Equipment Cleaner (CL-ECP-02, CL-ECP-08 and CL-ECP-128) |
| 1.5 | Product Use: | Equipment Cleaner |
| 1.6 | Distributor's Name: | CAIG Laboratories, Inc. |
| 1.7 | Distributor's Address: | 12200 Thatcher Court, Poway, CA 92064-6876 USA |
| 1.8 | Emergency Phone: | **CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300** |
| 1.9 | Business Phone / Fax: | +1 (800) 224-4123 |

## 2. HAZARDS IDENTIFICATION

| | | |
|---|---|---|
| 2.1 | Hazard Identification: | This product is NOT classified as a HAZARDOUS SUBSTANCE or as DANGEROUS GOODS according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia).<br>**WARNING! CAUSES EYE IRRITATION.**<br>Classification: Eye Irrit. 2B |
| 2.2 | Label Elements: | Hazard Statements (H): H320 – Causes eye irritation.<br>Precautionary Statements (P): P264 – Wash thoroughly after handling. P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 – If eye irritation persists: Get medical advice/attention. |
| 2.3 | Other Warnings: | **KEEP OUT OF REACH OF CHILDREN.** |

## 3. COMPOSITION & INGREDIENT INFORMATION

| CHEMICAL NAME(S) | CAS No. | RTECS No. | EINECS No. | % | EXPOSURE LIMITS IN AIR (mg/m³) ACGIH ppm TLV | ACGIH ppm STEL | NOHSC ppm ES-TWA | NOHSC ppm ES-STEL | NOHSC ppm ES-PEAK | OSHA ppm PEL | OSHA ppm STEL | OSHA ppm IDLH | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WATER | 7732-18-5 | ZC0110000 | 231-191-2 | 60-100 | NE | NE | NF | NF | NF | NE | NE | NE | |
| PROPRIETARY MIXTURE | NA | NA | NA | NA | NA | NA | NF | NF | NF | NA | NA | NA | |
| | Eye Irrit. 2B; H320 | | | | | | | | | | | | |

## 4. FIRST AID MEASURES

| | | |
|---|---|---|
| 4.1 | First Aid: | Ingestion: If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed.<br>Eyes: Splashes are not likely; however, if product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes lifting upper and lower lids, occasionally.<br>Skin: Wash thoroughly with soap and water. In case of contact, immediately flush skin with plenty of water for at least 15 minutes.<br>Inhalation: Remove victim to fresh air at once. If breathing difficult, administer oxygen. If breathing stops give artificial respiration. Keep person warm, quiet and get medical attention. |
| 4.2 | Effects of Exposure: | Ingestion: If product is swallowed, may cause nausea, vomiting and/or diarrhea.<br>Eyes: Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering.<br>Skin: May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.<br>Inhalation: None expected. |
| 4.3 | Symptoms of Overexposure: | Ingestion: Nausea, intestinal discomfort, vomiting and/or diarrhea.<br>Eyes: Overexposure in eyes may cause redness, itching and watering.<br>Skin: Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. Frostbite like symptoms. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some individuals. |
| 4.4 | Acute Health Effects: | Non-irritating when used as directed. Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea. |
| 4.5 | Chronic Health Effects: | Non-irritating when used as directed. Overexposure may trigger asthma-like symptoms in some sensitive individuals. May also induce skin sensitization and respiratory hypersensitivity. Possible allergic dermatitis. |

## 4. FIRST AID MEASURES – cont'd

| | | |
|---|---|---|
| 4.6 | Target Organs: | Eyes, Skin |
| 4.7 | Medical Conditions Aggravated by Exposure: | Pre-existing dermatitis, other skin conditions, and disorders of the target organs (eyes, skin). |

| | |
|---|---|
| HEALTH | 1 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARDS | 0 |
| PROTECTIVE EQUIPMENT | B |
| EYES / SKIN | |

## 5. FIREFIGHTING MEASURES

| | | |
|---|---|---|
| 5.1 | Fire & Explosion Hazards: | This product is not flammable. However, if involved in a fire, this product may decompose at high temperatures to form toxic gases (e.g., CO,$CO_X$). |
| 5.2 | Extinguishing Methods: | Water, Foam, $CO_2$, Dry Chemical. Use water spray to cool unopened containers. |
| 5.3 | Firefighting Procedures: | Fight fires as for surrounding materials. As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand) and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personal. Fight fire upwind. Avoid spraying water directly into storage containers because of danger of boil-over. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. |




## 6. ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|---|
| 6.1 | Spills: | Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. Plastic or rubber gloves, respirator, eye protection and apron may be required for clean-up of large spills.<br>Small Spills: Wear appropriate protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as "speedy dry" to soak up material. Sweep up material using non-sparking materials (e.g., plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container.<br>Large Spills: Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant. |

## 7. HANDLING & STORAGE INFORMATION

| | | |
|---|---|---|
| 7.1 | Work & Hygiene Practices: | Do not eat, drink or smoke when handling this product. Contents under pressure. Handle as to avoid puncturing container(s). When used as intended, no additional protective equipment is necessary. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water. |
| 7.2 | Storage & Handling: | Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans) away from heat and direct sunlight. Avoid temperatures above 120 °F. Keep away from incompatible substances. Protect containers from physical damage. To avoid unintentional spraying keep cap in place when not in use. |
| 7.3 | Special Precautions: | Clean all spills promptly. Spilled material may present a slipping hazard. |

## 8. EXPOSURE CONTROLS & PERSONAL PROTECTION

| 8.1 | Exposure Limits: ppm ($mg/m^3$) | | ACGIH | | NOHSC | | | OSHA | | | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CHEMICAL NAME(S) | TLV | STEL | ES-TWA | ES-STEL | ES-PEAK | PEL | STEL | IDLH | |
| | | NA | NA | NA | NF | NF | NF | NA | NA | NA | |

| | | |
|---|---|---|
| 8.2 | Ventilation & Engineering Controls: | When working with large quantities of product, provide adequate ventilation (e.g., local exhaust ventilation, fans). Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes. |
| 8.3 | Respiratory Protection: | No special respiratory protection is required under typical circumstances of use or handling. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134, or applicable U.S. state regulations, or the appropriate standards of Canada, its provinces, E.C. member states, or Australia. |
| 8.4 | Eye Protection: | **AVOID EYE CONTACT DUE TO IRRITATION POTENTIAL.** Wear protective eyewear (e.g., safety glasses with side-shield) at all times when handling large quantities (e.g., ≥ 1 gallon (3.8 L)) of this product. Always use protective eyewear when cleaning spills or leaks. Contact lenses pose a special hazard; soft lenses may absorb and concentrate irritants. |
| 8.5 | Hand Protection: | None required under normal conditions of use. However, may cause skin irritation in some sensitive individuals. When handling large quantities (e.g., ≥ 1 gallon (3.8 L)), wear rubber, nitrile or impervious plastic gloves. |
| 8.6 | Body Protection: | However, no special body protection is required under typical circumstances of use and handling. If necessary, refer to appropriate standards of Canada, the E.C. member states, or U.S. OSHA. |

## 9. PHYSICAL & CHEMICAL PROPERTIES

| | | |
|---|---|---|
| 9.1 | Appearance: | Milky white liquid |
| 9.2 | Odor: | No odor |
| 9.3 | Odor Threshold: | NA |
| 9.4 | pH: | NA |
| 9.5 | Melting Point/Freezing Point: | NA |
| 9.6 | Initial Boiling Point/Boiling Range: | NA |
| 9.7 | Flashpoint: | NA |
| 9.8 | Upper/Lower Flammability Limits: | NA |
| 9.9 | Vapor Pressure: | NA |
| 9.10 | Vapor Density: | NA |
| 9.11 | Relative Density: | NA |
| 9.12 | Solubility: | Soluble |
| 9.13 | Partition Coefficient (log $P_{ow}$): | NA |
| 9.14 | Autoignition Temperature: | NA |
| 9.15 | Decomposition Temperature: | NA |
| 9.16 | Viscosity: | NA |
| 9.17 | Other Information: | NA |

## 10. STABILITY & REACTIVITY

| | | |
|---|---|---|
| 10.1 | Stability: | Stable under normal conditions; unstable with heat or contamination. |
| 10.2 | Hazardous Decomposition Products: | Oxides of carbon (CO, $CO_2$). |
| 10.3 | Hazardous Polymerization: | Will not occur. |
| 10.4 | Conditions to Avoid: | Open flames, sparks, high heat, incompatible substances and direct sunlight. |
| 10.5 | Incompatible Substances: | Avoid extreme heat and ignition sources. Store away from oxidizers. |

## 11. TOXICOLOGICAL INFORMATION

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 11.1 | Routes of Entry: | Inhalation: | YES | Absorption: | YES | Ingestion: | NO |
| 11.2 | Toxicity Data: | This product has NOT been tested on animals to obtain toxicology data. Toxicology data, found in scientific literature, is available for some of the components of the product and is not presented in this document. | | | | | |
| 11.3 | Acute Toxicity: | See Section 4.4 | | | | | |
| 11.4 | Chronic Toxicity: | This material may aggravate any pre-existing skin condition (e.g., dermatitis). | | | | | |
| 11.5 | Suspected Carcinogen: | This product does not contain any chemicals known to the State of California to cause cancer or other reproductive harm. For more information go to www.P65Warnings.ca.gov | | | | | |
| 11.6 | Reproductive Toxicity: | This product is not reported to produce reproductive toxicity in humans. | | | | | |
| | Mutagenicity: | This product is not reported to produce mutagenic effects in humans. | | | | | |
| | Embryotoxicity: | This product is not reported to produce embryotoxic effects in humans. | | | | | |
| | Teratogenicity: | This product is not reported to cause teratogenic effects in humans. | | | | | |
| | Reproductive Toxicity: | This product is not reported to cause reproductive effects in humans. | | | | | |
| 11.7 | Irritancy of Product: | See Section 4.2 | | | | | |
| 11.8 | Biological Exposure Indices: | NE | | | | | |
| 11.9 | Physician Recommendations: | Treat symptomatically. | | | | | |

## 12. ECOLOGICAL INFORMATION

| | | |
|---|---|---|
| 12.1 | Environmental Stability: | There is no specific data available for this product. |
| 12.2 | Effects on Plants & Animals: | There are no specific data available for this product. |
| 12.3 | Effects on Aquatic Life: | There are no specific data available for this product; however, very large releases of this product may be harmful or fatal to overexposed aquatic life. |

## 13. DISPOSAL CONSIDERATIONS

| | | |
|---|---|---|
| 13.1 | Waste Disposal: | Products covered by this SDS, in their original form, when disposed as waste, are considered non hazardous waste according to Federal RCRA regulations (40 CFR 261). Disposal should be in accordance with local, state and federal regulations. Dispose of in accordance with federal, state and local regulations. |
| 13.2 | Special Considerations: | NA |

## 14. TRANSPORTATION INFORMATION

The basic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.

| | | |
|---|---|---|
| 14.1 | 49 CFR (GND): | NOT REGULATED |
| 14.2 | IATA (AIR): | NOT REGULATED |
| 14.3 | IMDG (OCN): | NOT REGULATED |
| 14.4 | TDGR (Canadian GND): | NOT REGULATED |
| 14.5 | ADR/RID (EU): | NOT REGULATED |
| 14.6 | SCT (MEXICO): | NOT REGULATED |
| 14.7 | ADGR (AUS): | NOT REGULATED |

## 15. REGULATORY INFORMATION

| | | |
|---|---|---|
| 15.1 | SARA Reporting Requirements: | This product does not contain any substances subject to SARA Title III, section 313 reporting requirements. |
| 15.2 | SARA TPQ: | There are no specific Threshold Planning Quantities for the components of this product. |
| 15.3 | TSCA Inventory Status: | The components of this product are listed on the TSCA Inventory. |
| 15.4 | CERCLA Reportable Quantity: | NA |
| 15.5 | Other Federal Requirements: | NA |
| 15.6 | Other Canadian Regulations: | This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List. |
| 15.7 | State Regulatory Information: | No ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).<br>This product does not contain any chemicals known to the State of California to cause cancer or other reproductive harm. For more information go to www.P65Warnings.ca.gov. |
| 15.8 | Other Requirements: | NA |

## 16. OTHER INFORMATION

| | | |
|---|---|---|
| 16.1 | Other Information: | **WARNING! CAUSES EYE IRRITATION.** Use only as directed. Keep out of reach of children. Avoid contact with eyes. In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). If skin irritation occurs: get medical advice/attention. **KEEP LOCKED UP AND OUT OF REACH OF CHILDREN.** |
| 16.2 | Terms & Definitions: | See last page of this Safety Data Sheet. |
| 16.3 | Disclaimer: | This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of ShipMate's & CAIG Laboratories, Inc.'s knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness is not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition. |
| 16.4 | Prepared for: | **CAIG Laboratories, Inc.**<br>12200 Thatcher Court<br>Poway, CA 92064-6876<br>Tel: +1 (800) CAIG-123 (244-4123)<br>Fax: +1 (858) 486-8398 fax<br>http://www.caig.com/ |
| 16.5 | Prepared by: | **ShipMate, Inc.**<br>P.O. Box 787<br>Sisters, Oregon 97759-0787 USA<br>Tel: +1 (310) 370-3600<br>Fax: +1 (310) 370-5700<br>http://www.shipmate.com |

## DEFINITION OF TERMS

A large number of abbreviations and acronyms appear on a SDS. Some of these that are commonly used include the following:

### GENERAL INFORMATION:

| | |
|---|---|
| **CAS No.** | Chemical Abstract Service Number |
| **RTECS No.** | Registry of Toxic Effects of Chemical Substances Number |
| **EINECS No.** | European Inventory of Existing Commercial Chemical Substances Number |

### EXPOSURE LIMITS IN AIR:

| | |
|---|---|
| **ACGIH** | American Conference on Governmental Industrial Hygienists |
| **IDLH** | Immediately Dangerous to Life and Health |
| **NOHSC** | National Occupational Health and Safety Commission (Australia) |
| **OSHA** | U.S. Occupational Safety and Health Administration |
| **PEL** | Permissible Exposure Limit |
| **STEL** | Short Term Exposure Limit |
| **TLV** | Threshold Limit Value |
| **TWA** | Time Weighted Average |

### FIRST AID MEASURES:

| | |
|---|---|
| **CPR** | Cardiopulmonary resuscitation - method in which a person whose heart has stopped receives manual chest compressions and breathing to circulate blood and provide oxygen to the body. |

### HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

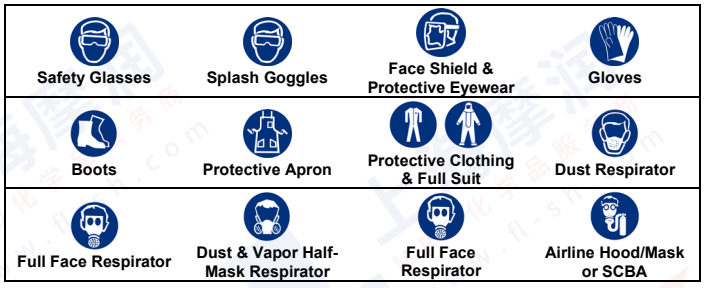
### HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

| | |
|---|---|
| **0** | Minimal Hazard |
| **1** | Slight Hazard |
| **2** | Moderate Hazard |
| **3** | Severe Hazard |
| **4** | Extreme Hazard |

**HEALTH**
**FLAMMABILITY**
**PHYSICAL HAZARDS**
**PERSONAL PROTECTION**

### PERSONAL PROTECTION RATINGS:

| | |
|---|---|
| **A** | |
| **B** | |
| **C** | |
| **D** | |
| **E** | |
| **F** | |
| **G** | |
| **H** | |
| **I** | |
| **J** | |
| **K** | |
| **X** | **Consult your supervisor or SOPs for special handling directions.** |




### OTHER STANDARD ABBREVIATIONS:

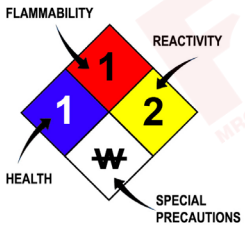
| | |
|---|---|
| **Carc** | Carcinogenic |
| **Irrit** | Irritant |
| **NA** | Not Available |
| **NR** | No Results |
| **ND** | Not Determined |
| **NE** | Not Established |
| **NF** | Not Found |
| **SCBA** | Self-Contained Breathing Apparatus |
| **Sens** | Sensitization |
| **STOT RE** | Specific Target Organ Toxicity – Repeat Exposure |
| **STOT SE** | Specific Target Organ Toxicity – Single Exposure |

### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

| **FLAMMABILITY LIMITS IN AIR:** | |
|---|---|
| **Autoignition Temperature** | Minimum temperature required to initiate combustion in air with no other source of ignition |
| **LEL** | Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source |
| **UEL** | Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source |

### HAZARD RATINGS:

| | |
|---|---|
| **0** | Minimal Hazard |
| **1** | Slight Hazard |
| **2** | Moderate Hazard |
| **3** | Severe Hazard |
| **4** | Extreme Hazard |
| **ACD** | Acidic |
| **ALK** | Alkaline |
| **COR** | Corrosive |
| **W** | Use No Water |
| **OX** | Oxidizer |
| **TREFOIL** | Radioactive |




### TOXICOLOGICAL INFORMATION:

| | |
|---|---|
| **$LD_{50}$** | Lethal Dose (solids & liquids) which kills 50% of the exposed animals |
| **$LC_{50}$** | Lethal concentration (gases) which kills 50% of the exposed animal |
| **ppm** | Concentration expressed in parts of material per million parts |
| **$TD_{lo}$** | Lowest dose to cause a symptom |
| **TCLo** | Lowest concentration to cause a symptom |
| **$TD_{lo}$, $LD_{lo}$, & $LD_o$ or TC, $TC_o$, $LC_{lo}$, & $LC_o$** | Lowest dose (or concentration) to cause lethal or toxic effects |
| **IARC** | International Agency for Research on Cancer |
| **NTP** | National Toxicology Program |
| **RTECS** | Registry of Toxic Effects of Chemical Substances |
| **BCF** | Bioconcentration Factor |
| **$TL_m$** | Median threshold limit |
| **log $K_{OW}$ or log $K_{OC}$** | Coefficient of Oil/Water Distribution |

### REGULATORY INFORMATION:

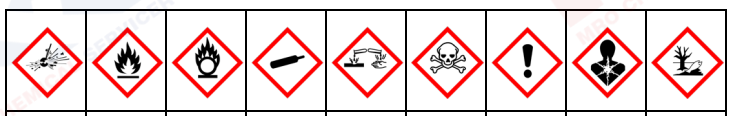
| | |
|---|---|
| **WHMIS** | Canadian Workplace Hazardous Material Information System |
| **DOT** | U.S. Department of Transportation |
| **TC** | Transport Canada |
| **EPA** | U.S. Environmental Protection Agency |
| **DSL** | Canadian Domestic Substance List |
| **NDSL** | Canadian Non-Domestic Substance List |
| **PSL** | Canadian Priority Substances List |
| **TSCA** | U.S. Toxic Substance Control Act |
| **EU** | European Union (European Union Directive 67/548/EEC) |
| **WGK** | Wassergefährdungsklassen (German Water Hazard Class) |

### WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:



| **Class A** | **Class B** | **Class C** | **Class D1** | **Class D2** | **Class D3** | **Class E** | **Class F** |
|---|---|---|---|---|---|---|---|
| Compressed | Flammable | Oxidizing | Toxic | Irritation | Infectious | Corrosive | Reactive |

### CLP/GHS (1272/2008/EC) PICTOGRAMS:



| **GHS01** | **GHS02** | **GHS03** | **GHS04** | **GHS05** | **GHS06** | **GHS07** | **GHS08** | **GHS09** |
|---|---|---|---|---|---|---|---|---|
| Explosive | Flammable | Oxidizer | Pressurized | Corrosive | Toxic | Harmful Irritating | Health Hazard | Environment |