

SAFETY DATA SHEET

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards


SDS Revision: 1.0

SDS Revision Date: 4/30/2015

1. PRODUCT & COMPANY IDENTIFICATION

| | | |
|-----|------------------------------|---|
| 1.1 | Product Name: | DAP® CLEAR SILICONE SEALANT |
| 1.2 | Chemical Name: | Silicone Elastomer |
| 1.3 | Synonyms: | P/N 46916 |
| 1.4 | Trade Names: | Dap® |
| 1.5 | Product Uses & Restrictions: | Silicone Sealant |
| 1.6 | Distributor's Name: | Harbor Freight Tools USA, Inc. |
| 1.7 | Distributor's Address: | 26541 Agoura Road, Calabasas, CA 91302 USA |
| 1.8 | Emergency Phone: | CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN 676687) |
| 1.9 | Business Phone / Fax: | +1 (805) 388-1000 |

2. HAZARDS IDENTIFICATION

| | | | |
|-----|------------------------|--|---|
| 2.1 | Hazard Identification: | <p>This product is classified as a HAZARDOUS SUBSTANCE but not as DANGEROUS GOODS according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia). In the event of an exposure or medical inquiry involving this product, please contact a physician or local poison control center, who may seek advice from the U.S. manufacturer, and show them this SDS.</p> <p>WARNING! HARMFUL IF SWALLOWED. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SKIN IRRITATION. CAUSES SEVERE EYE IRRITATION.</p> <p>Classification: Acute Tox. 4; Eye Dam. 1; Skin Irrit. 1; Skin Sens. 1</p> <p><u>Hazard Statements</u> (H): H302 – Harmful if swallowed. H315 – Causes skin irritation. H317 – May cause an allergic skin reaction. H319 – Causes serious eye irritation.</p> <p><u>Precautionary Statements</u> (P): P261 – Avoid breathing fume/mist/vapors. P272 – Contaminated work clothing should not be allowed out of the workplace. P280 – Wear protective gloves/eye protection. P302+P352 – IF ON SKIN: Wash with plenty of water and soap. P333+P313 – If skin irritation or rash occurs: Get medical advice/attention. P321 – Specific treatment – see Section 4 of this Safety Data Sheet. P362+P364 – Take off contaminated clothing and wash it before reuse. P264 – Wash thoroughly with soap and water after handling. P270 – Do not eat, drink or smoke when using this product. P301+P312 – IF SWALLOWED: Call a Poison Center/doctor if you feel unwell. P330 – Rinse mouth. 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. P501 – Dispose of contents/ container to an approved waste disposal plant.</p> |  |
|-----|------------------------|--|---|

3. COMPOSITION & INGREDIENT INFORMATION

| CHEMICAL NAME(S) | CAS No. | RTECS No. | EINECS No. | % | EXPOSURE LIMITS IN AIR (mg/m ³) | | | | | | | | | OTHER |
|------------------------|---|------------|------------|--------|---|------|--------|---------|---------|------|------|------|--|-------|
| | | | | | ACGIH | | NOHSC | | | OSHA | | | | |
| | | | | | ppm | | ppm | | | ppm | | | | |
| | | | | | TLV | STEL | ES-TWA | ES-STEL | ES-PEAK | PEL | STEL | IDLH | | |
| PROPRIETARY COMPOUND | NA | NA | NA | 60-100 | NA | NA | NF | NF | NF | NA | NA | NA | | |
| ETHYLTRIACETOXYSILANE | 17689-77-9 | NA | 241-677-4 | 1-5 | NA | NA | NF | NF | NF | NA | NA | NA | | |
| | Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; H302, H314, H318 | | | | | | | | | | | | | |
| METHYLTRIACETOXYSILANE | 4253-34-3 | Vv4500000 | 224-221-9 | 1-5 | NA | NA | NF | NF | NF | NA | NA | NA | | |
| | Acute Tox. 4; Skin Corr. 1C; H302, H314 | | | | | | | | | | | | | |
| ACETIC ACID | 64-19-7 | AF12225000 | 200-580-7 | 0.1-1 | 10 | 15 | 10 | 25 | NF | 10 | 15 | 50 | | |
| | Flam. Liq. 3; Skin Corr. 1A; H226, H314 | | | | | | | | | | | | | |

* ACETIC ACID is formed upon contact with water or humid air

4. FIRST AID MEASURES

| | | |
|-----|------------|---|
| 4.1 | First Aid: | <p><u>Ingestion:</u> 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.</p> <p><u>Eyes:</u> 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.</p> <p><u>Skin:</u> Wash thoroughly with soap and water. In case of contact, immediately flush skin with plenty of water for at least 15 minutes.</p> <p><u>Inhalation:</u> 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.</p> |
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4. FIRST AID MEASURES – cont'd

| | | | | | | | | | | | | | | | | | |
|-----------------------------|--|--|---------------|--|----------|---------------------|--|----------|-------------------------|--|----------|-----------------------------|--|----------|-------------|-------------|--|
| 4.2 | Effects of Exposure: | <p><u>Ingestion:</u> If product is swallowed, may cause gastrointestinal disturbance.</p> <p><u>Eyes:</u> Exposure to dust may cause eye irritation. Symptoms of overexposure may include redness, itching, irritation and watering.</p> <p><u>Skin:</u> May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.</p> <p><u>Inhalation:</u> Coughing, wheezing, shortness of breath, impaired pulmonary function. Irritation or soreness in throat, nose and respiratory tract. If material is heated or high vapor concentration is attained, central nervous system depression, confusion, or loss of coordination.</p> | | | | | | | | | | | | | | | |
| 4.3 | Symptoms of Overexposure: | <p><u>Ingestion:</u> If product is swallowed, may cause gastrointestinal disturbance.</p> <p><u>Eyes:</u> Exposure to dust may cause eye irritation. Symptoms of overexposure may include redness, itching, irritation and watering.</p> <p><u>Skin:</u> May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.</p> <p><u>Inhalation:</u> Coughing, wheezing, shortness of breath, impaired pulmonary function. Irritation or soreness in throat, nose and respiratory tract. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.</p> | | | | | | | | | | | | | | | |
| 4.4 | Acute Health Effects: | Non-irritating when used as directed. Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of dust can cause coughing, wheezing, shortness of breath, impaired pulmonary function. Irritation or soreness in throat, nose and respiratory tract. | | | | | | | | | | | | | | | |
| 4.5 | Chronic Health Effects: | Non-irritating when used as directed. Possible allergic dermatitis in some sensitive individuals | | | | | | | | | | | | | | | |
| 4.6 | Target Organs: | Eyes, Skin. | | | | | | | | | | | | | | | |
| 4.7 | Medical Conditions Aggravated by Exposure: | Pre-existing dermatitis, other skin conditions. | | | | | | | | | | | | | | | |
| | | <table> <tr> <td colspan="2">HEALTH</td><td>2</td></tr> <tr> <td colspan="2">FLAMMABILITY</td><td>1</td></tr> <tr> <td colspan="2">PHYSICAL HAZARDS</td><td>0</td></tr> <tr> <td colspan="2">PROTECTIVE EQUIPMENT</td><td>B</td></tr> <tr> <td>EYES</td><td>SKIN</td><td></td></tr> </table> | HEALTH | | 2 | FLAMMABILITY | | 1 | PHYSICAL HAZARDS | | 0 | PROTECTIVE EQUIPMENT | | B | EYES | SKIN | |
| HEALTH | | 2 | | | | | | | | | | | | | | | |
| FLAMMABILITY | | 1 | | | | | | | | | | | | | | | |
| PHYSICAL HAZARDS | | 0 | | | | | | | | | | | | | | | |
| PROTECTIVE EQUIPMENT | | B | | | | | | | | | | | | | | | |
| EYES | SKIN | | | | | | | | | | | | | | | | |

5. FIREFIGHTING MEASURES

| | | | |
|-----|---------------------------|--|---|
| 5.1 | Fire & Explosion Hazards: | This material can burn but will not readily ignite. However, if involved in a fire, this product may decompose at high temperatures to form toxic gases (e.g., CO, CO _x , Hydrocarbons). When heated above 150 °C (300 °F) in the presence of air, product can form formaldehyde vapors. |  |
| 5.2 | Extinguishing Methods: | CO ₂ , Dry Chemical, Alcohol foam, Dry Chemical. Use water spray to cool containers. | |
| 5.3 | Firefighting Procedures: | Keep containers cool until well after the fire is out. 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: | <p>Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment.</p> <p>For small spills (e.g., < 1 gallon (3.8 L)) wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows) and secure all sources of ignition. Remove spilled material with absorbent material and place into appropriate closed container(s) for disposal. Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas and outside of container with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse.</p> <p>For large spills (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Use ONLY non-sparking tools for recovery and cleanup. Transfer liquid to containers for recovery or disposal and solid diking material to separate containers for proper disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Keep spills and cleaning runoffs out of drains, municipal sewers and open bodies of water.</p> |
|-----|---------|---|

7. HANDLING & STORAGE INFORMATION

| | | |
|-----|---------------------------|--|
| 7.1 | Work & Hygiene Practices: | Use normal hygiene practices. Avoid breathing vapors. Avoid direct skin contact. Wash hands thoroughly after using this product and before eating, drinking, or smoking. |
| 7.2 | Storage & Handling: | Use and store in a cool, dry, well-ventilated area. Keep away from excessive heat, open flames, sparks, and other possible sources of ignition. Do not store in unmarked containers or storage devices. Recommended maximum shelf life: 36 months. |
| 7.3 | Special Precautions: | Empty containers may contain product residue. Do not pressurize, cut, heat or weld empty containers. Use reasonable care and store away from oxidizing materials. Keep away from water and moisture. |

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8. EXPOSURE CONTROLS & PERSONAL PROTECTION

| | | | | | | | | | | | |
|-----|--|--|-------|------|--------|---------|---------|------|------|------|-------|
| 8.1 | Exposure Limits: ppm (mg/m ³) | CHEMICAL NAME(S) | ACGIH | | NOHSC | | | OSHA | | | OTHER |
| | | | TLV | STEL | ES-TWA | ES-STEL | ES-PEAK | PEL | STEL | IDLH | |
| | | *ACETIC ACID is formed upon contact with water or humid air | | | | | | | | | |
| | | ACETIC ACID | 10 | 15 | 10 | 25 | NF | 10 | 15 | 50 | |
| 8.2 | Ventilation & Engineering Controls: | The use of mechanical dilution ventilation is recommended to maintain airborne concentrations below the recommended occupational exposure limits, whenever this material is used in a confined space, is heated above normal temperatures (up to 38°C) or is agitated. When heated above 150 °C (300 °F) in the presence of air, product can form formaldehyde vapors. <u>Acetic Acid</u> is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines. | | | | | | | | | |
| 8.3 | Respiratory Protection: | No special respiratory protection is required under typical circumstances of use or handling. In instances where mist or vapors of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or Australia. | | | | | | | | | |
| 8.4 | Eye Protection: | Safety glasses equipped with side shields should be adequate protection under most conditions of use. Wear goggles and/or face shield if splashing or spraying is anticipated. Wear goggles and face shield if material is heated above 125 °F (51 °C). Have suitable eye wash water available. | | | | | | | | | |
| 8.5 | Hand Protection: | Use gloves constructed of chemical resistant materials such as neoprene or heavy nitrile rubber if frequent or prolonged contact is expected. | | | | | | | | | |
| 8.6 | Body Protection: | Avoid prolonged and/or repeated skin contact. Use clean and impervious protective clothing (e.g., neoprene or Tyvek®) if splashing or spraying conditions are present. Protective clothing should include long-sleeves, apron, boots and additional facial protection. Remove oil contaminated clothing. Launder oil contaminated clothing before reusing. Contaminated leather goods should be removed promptly and discarded. | | | | | | | | | |

9. PHYSICAL & CHEMICAL PROPERTIES

| | | |
|------|---|-------------------------------|
| 9.1 | Appearance: | Colorless paste. |
| 9.2 | Odor: | Acetic acid 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: | > 100 °C (212 °F), closed cup |
| 9.8 | Upper/Lower Flammability Limits: | NA |
| 9.9 | Vapor Pressure: | NA |
| 9.10 | Vapor Density: | NA |
| 9.11 | Relative Density: | 1.007 |
| 9.12 | Solubility: | Insoluble |
| 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 at normal temperatures. |
| 10.2 | Hazardous Decomposition Products: | Fumes, smoke, carbon monoxide, silicon oxides and traces of incompletely burned carbon compounds. When heated above 150 °C (300 °F) in the presence of air, product can form formaldehyde vapors. |
| 10.3 | Hazardous Polymerization: | Will not occur. |
| 10.4 | Conditions to Avoid: | Open flames, sparks, high heat, and close proximity to incompatible substances. |
| 10.5 | Incompatible Substances: | Strong oxidizing agents, water, moisture or humid air can cause vapors to form |

11. TOXICOLOGICAL INFORMATION

| | | | | |
|------|-----------------------|---|-----------------|----------------|
| 11.1 | Routes of Entry: | Inhalation: NO | Absorption: YES | Ingestion: YES |
| 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: | See section 4.5 | | |
| 11.5 | Suspected Carcinogen: | No | | |

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11. TOXICOLOGICAL INFORMATION – cont'd

| | | |
|------|------------------------------|--|
| 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 produce teratogenic effects in humans. |
| | Reproductive Toxicity: | This product is not reported to produce reproductive effects in humans. |
| 11.7 | Irritancy of Product: | The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure. |
| 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. |

13. DISPOSAL CONSIDERATIONS


| | | |
|------|-------------------------|---|
| 13.1 | Waste Disposal: | Dispose of in accordance with federal, state, provincial 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 Threshold Planning Quantity: | 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 or are otherwise exempt. | |
| 15.4 | CERCLA Reportable Quantity (RQ): | NA | |
| 15.5 | Other Federal Requirements: | This product contains petroleum distillates and may be subject to regulation by CWA. | |
| 15.6 | Other Canadian Regulations: | This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDL. None of the components of this product are listed on the Priorities Substances List. WHMIS D2B (Other Toxic Effects) |  |
| 15.7 | State Regulatory Information: | <u>Ethyltriacetoxysilane</u> is found on the following state criteria list: New Jersey Right-to-Know List (NJ). <u>Methyltriacetoxysilane</u> is found on the following state criteria list: MA, NJ and PA. 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). | |


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15. REGULATORY INFORMATION – cont'd

| | | | |
|------|---------------------|--|---|
| 15.8 | Other Requirements: | The primary components of this product are not listed in Annex I of EU Directive 67/548/EEC: Harmful (Xn). Risk Phrases (R): 20/21-35 – Harmful by inhalation and in contact with skin. Causes severe burns. Safety Phrases (S): 7/8-37/39-53-45 – Keep container tightly closed and dry. Wear suitable protective clothing and eye/face protection. Avoid exposure – obtain special instructions before use. In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). |  |
|------|---------------------|--|---|

16. OTHER INFORMATION

| | | | |
|------|----------------------|--|--|
| 16.1 | Other Information: | WARNING! HARMFUL IF SWALLOWED. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SKIN IRRITATION. CAUSES SEVERE EYE IRRITATION. Avoid breathing fume/mist/vapors. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/eye protection. IF ON SKIN: Wash with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention. Wash thoroughly with soap and water after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a Poison Center/doctor if you feel unwell. Rinse mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Dispose of contents/ container to an approved waste disposal plant. KEEP 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 & Harbor Freight Tools USA, 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: | Harbor Freight Tools USA, Inc. 26541 Agoura Road Calabasas, CA 91302 USA Tel: +1 (805) 388-1000 http://www.harborfreight.com |  |
| 16.5 | Prepared by: | ShipMate, Inc. P.O. Box 787 Sisters, Oregon 97759-0787 USA Tel: +1 (310) 370-3600 Fax: +1 (310) 370-5700 http://www.shipmate.com | |

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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 |
|---------|----------------------------------|

EXPOSURE LIMITS IN AIR:

| | |
|-------|---|
| ACGIH | American Conference on Governmental Industrial Hygienists |
| C | Ceiling Limit |
| ES | Exposure Standard (Australia) |
| IDLH | Immediately Dangerous to Life and Health |
| 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. |
|-----|--|

HMIS-III HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

| | | |
|---|-----------------|---------------------|
| 0 | Minimal Hazard | HEALTH |
| 1 | Slight Hazard | FLAMMABILITY |
| 2 | Moderate Hazard | PHYSICAL HAZARDS |
| 3 | Severe Hazard | PERSONAL PROTECTION |
| 4 | Extreme Hazard | |

PERSONAL PROTECTION RATINGS:

| | | | | | | | | | | | | | | | |
|--|-----------------------------------|----------------------------------|--|----------------|----------------|----------------------------------|--------|-------|-----------------|---------------------------------|-----------------|----------------------|-----------------------------------|----------------------|---------------------------|
| A | | G | | | | | | | | | | | | | |
| B | | H | | | | | | | | | | | | | |
| C | | I | | | | | | | | | | | | | |
| D | | J | | | | | | | | | | | | | |
| E | | K | | | | | | | | | | | | | |
| F | | X | Consult your supervisor or SOPs for special handling directions. | | | | | | | | | | | | |
| <table><tr><td> Safety Glasses</td><td> Splash Goggles</td><td> Face Shield & Protective Eyewear</td><td> Gloves</td></tr><tr><td> Boots</td><td> Synthetic Apron</td><td> Protective Clothing & Full Suit</td><td> Dust Respirator</td></tr><tr><td> Full Face Respirator</td><td> Dust & Vapor Half-Mask Respirator</td><td> Full Face Respirator</td><td> Airline Hood/Mask or SCBA</td></tr></table> | | | | Safety Glasses | Splash Goggles | Face Shield & Protective Eyewear | Gloves | Boots | Synthetic Apron | Protective Clothing & Full Suit | Dust Respirator | Full Face Respirator | Dust & Vapor Half-Mask Respirator | Full Face Respirator | Airline Hood/Mask or SCBA |
| Safety Glasses | Splash Goggles | Face Shield & Protective Eyewear | Gloves | | | | | | | | | | | | |
| Boots | Synthetic Apron | Protective Clothing & Full Suit | Dust Respirator | | | | | | | | | | | | |
| Full Face Respirator | Dust & Vapor Half-Mask Respirator | Full Face Respirator | Airline Hood/Mask or SCBA | | | | | | | | | | | | |

OTHER STANDARD ABBREVIATIONS:

| | |
|-------|------------------------------------|
| ML | Maximum Limit |
| mg/m3 | milligrams per cubic meter |
| NA | Not Available |
| ND | Not Determined |
| NE | Not Established |
| NF | Not Found |
| NR | No Results |
| ppm | parts per million |
| SCBA | Self-Contained Breathing Apparatus |

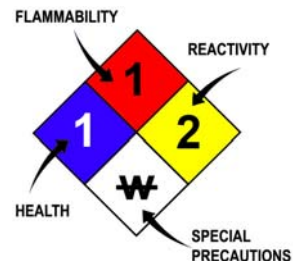
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

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 ₁₀ | Lowest dose to cause a symptom |
| TCLo | Lowest concentration to cause a symptom |
| TD ₁₀ , LD ₁₀ , & LD ₀ or TC, TC ₀ , LC ₁₀ , & LC ₀ | 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 |
| NOHSC | National Occupational Health and Safety Commission (Australia) |
| 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) |
| HMIS-III | National Paint & Coatings Association Hazardous Materials Identification System |

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 |

EC (67/548/EEC) INFORMATION:

| | | | | | | | |
|-----------|-----------|-----------|---------|-----------|-------|----------|---------|
| | | | | | | | |
| C | E | F | N | O | T | Xi | Xn |
| Corrosive | Explosive | Flammable | Harmful | Oxidizing | Toxic | Irritant | Harmful |

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 |