HARBOR FREIGHT TOOLS

Quality Tools at Ridiculously Low Prices

## **SAFETY DATA SHEET**

Page 1 of 6 **HFT-96284** 

Prepared to OSHA\_ACC\_ANSL NOHSC\_WHMIS\_2001/58 & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 4/30/2015

| Prepa | ared to OSHA, ACC, ANSI, N   | IOHSC, WHMIS, 2  | 2001/58 & 1272/2   | 008/EC Standard   | ds   | SDS  | Revision: 1.0   |  | SDS Revisi   | ion Date: 4                                       | /30/2015        |
|-------|------------------------------|--|--|---|--|--|---|--|--|---|-----------------|
|       |                              |  |  |   |  |  |   |  |  |   |                 |
|       |                              | 1.   | <b>PRODUC</b>  | T & COM   | <b>PANY</b>  | <b>IDENTII</b>   | <b>FICATIO</b>  | N  |  |   |                 |
| 1.1   | Product Name:                |  | /HITE 2X   |   |  |  |   |  |  |   |                 |
| .2    | Chemical Name:               | Polyurethane   |  |   |  |  |   |  |  |   |                 |
| .3    | Synonyms:                    | Dries White 2  | X Faster Gorilla   | ı Glue <sup>®</sup>   |  |  |   |  |  |   |                 |
| .4    | Trade Names:                 | Dries White 2  | X Faster Gorilla   | ı Glue <sup>®</sup>   |  |  |   |  |  |   |                 |
| .5    | Product Uses & Restrictions: | Polyurethane   | Adhesive   |   |  |  |   |  |  |   |                 |
| .6    | Distributor's Name:          | Harbor Freigh  | nt Tools USA, Ir   | IC.   |  |  |   |  |  |   |                 |
| .7    | Distributor's Address:       | 26541 Agoura   | a Road, Calaba   | sas, CA 91302   | 2 USA  |  |   |  |  |   |                 |
| .8    | Emergency Phone:             | CHEMTRE  | C: +1 (703)  | 527-3887 /  | +1 (800  | ) 424-930  | 0 (CCN 67   | <sup>'</sup> 6687)   |  |   |                 |
| .9    | Business Phone / Fax:        | +1 (805) 388-  | 1000   |   |  |  |   |  |  |   |                 |
|       |                              |  | 2 4  | ZARDS I   | DENT   | IEIC ATI   | ON  |  |  |   |                 |
| .1    | Hazard Identification:       | This product   | is classified as   |   |  |  |   | odo oo   | oording to t   | tho   |                 |
|       |                              | WARNING! CAUSES SE Classification Hazard State reaction. H3 Precautionary Smoking. P2 P264 – Was Contaminate gloves/protec soap and wa minutes. Rem irritation or a (see section P370+P378 - P403+P235 – | criteria of [NOH CAUSES SK RIOUS EYE IR ESKIN Irrit.2; Skements (H): H3 19 - Causes sew Statements (F) 33 - Keep conth exposed skill work clothing tive clothing/eyter. P305+P3 100ve contact ler rash occurs - 4 of this Safet - In case of fictions of the storage atment, storage | IN IRRITATION. M. in Sens. 1B; E B15 – Causes rious eye irritar by: P210 – Kee tainer tightly cl n areas thoro should not be e protection/fa 51+P338 – IF pses if present Get medical a y Data Sheet) re, CO <sub>2</sub> , Halo-ventilated place | N. MAY<br>AY CAUS<br>ye Irrit. 20<br>skin irrition. H33<br>p away fi<br>osed. P2<br>oughly wi<br>allowed occe proteo<br>IN EYE<br>and easy<br>dvice/atte<br>D. P363<br>n (if pen<br>ce. Keep | GEAUSE AI<br>SE RESPIRA<br>a; STOT SE :<br>tation. H31<br>5 – May cau<br>rom heat/spa<br>61 – Avoid b<br>th soap and<br>out of the wo<br>cut of the wo<br>cut on. P302-<br>S: Rinse co<br>to do – cont<br>ention. P321<br>– Wash cor<br>mitted), dry<br>cool. P501 | N ALLERGIO<br>TORY IRRIT<br>3<br>7 — May car<br>se respiratory<br>arks/open flar<br>preathing fum<br>d water after<br>rkplace. P2<br>+P352 — IF (<br>ntinuously w<br>tinue rinsing.<br>I — For speci<br>ntaminated cl<br>chemical, or | use an y irritation me/hot see/ mist/r handli (280 – W. Oskill) water P333+; iffic first lothing of foam 1 | allergic son. surfaces – /vapors/spr ing. P272 /ear protect N: Wash v er for seve P313 – If s aid treatm before reu for extincti | kin  No 'ay. 2 — tive vith eral skin ent ase. on. | <b>!</b>        |
|       |                              | 3. C(  | OMPOSITI   | ON & INC  | REDI   | ENT INF  | ORMAT   | ION  |  |   |                 |
|       |                              |  |  |   |  |  |   |  | MITS IN AIR (r   | mg/m³)  |                 |
|       |                              |  |  | 1   |  | ACGIH  | NOHSC   | ;  | OSHA   | 4   |                 |
|       |                              |  |  |   |  | ppm  | ppm   |  | ppm  |   |                 |
| IEMI  | ICAL NAME(S)                 | CAS No.  | RTECS No.  | EINECS No.  | %  | TLV STEL   | ES- ES-<br>TWA STEL   | ES-<br>PEAK  | PEL STEL   | . IDLH  | OTHER           |
|       |                              | 167883-19-4  | NA   | NA  | 60-100   | NA NA  | NF NF   | NF   | NA NA  | NA  |                 |
| RET   | HANE PREPOLYMER              | Skin Irrit.2; Sk   | in Sens.1; Eye Irr   | it. 2; Acute Tox.   | 4; Resp. S   | ens. 1; STOT S   | SE 3; Carc.2; S   | TOT RE   | 2; H315, H3  | 317,  |                 |
|       |                              |  | 1334, H335, H35 <sup>-</sup>   |   | 1  | , ,  |   |  | ı  |   |                 |
|       | IYLENEDIPHENYL               | 26447-40-5   | NA   | 247-714-0   | 15-40  | 0.005 NA   | NF NF   | NF   | 0.2 NA   | NA  |                 |
|       | CYANATE (MDI) MIXED          |  | kin Sens. 1; Eye   |   | . 4; Resp.   | Sens. 1; STO   | Γ SE 3; Carc.2;   | STOT R   | RE 2; H315, I  | H317,   |                 |
| OIVI  | ERS                          | [H319, H332, I   | H334, H335, H35 <sup>-</sup>   | 1, ⊓3/3   |  |  |   |  |  |   |                 |
|       |                              |  |  |   |  |  |   |  |  |   |                 |
|       |                              |  | 4.   | FIRST All   | D MEA  | SURES  | 5   |  |  |   |                 |
| .1    | First Aid:                   | Ingestion:   | If ingested, de IMMEDIATEL   | <ol><li>If the patier</li></ol>   | nt is vomi   | ting, continue   | e to offer wat  | ter or m   | nilk. Never  | give wat  | ter or milk to  |
|       |                              |  | unconscious p estimate of th swallowed.  | e time at whi   | ch the m   | naterial was   | ingested and  | d the a  | mount of   | the subs  | tance that w    |
|       |                              | Eyes:  | Splashes are r for at least 15   | minutes lifting t   | upper and  | l lower lids, c  | occasionally.   |  |  |   |                 |
|       |                              | Skin:  | Wash thorough<br>least 15 minute   | , ,   | nd water.  | In case of o   | contact, imme   | diately  | flush skin   | with plent  | ty of water for |

respiration. Keep person warm, quiet and get medical attention.

Remove victim to fresh air at once. If breathing difficult, administer oxygen. If breathing stops give artificial

Inhalation:

HARBOR FREIGHT TOOLS

Quality Tools at Ridiculously Low Prices

### SAFETY DATA SHEET

Page 2 of 6 HFT-96284

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 4/30/2015 4. FIRST AID MEASURES - cont'd If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system 42 Effects of Exposure: Ingestion: Vapor of this product may be mildly to moderately irritation to the eyes. Symptoms of overexposure may Eyes: include redness, itching, irritation and watering. May be irritating to skin in some sensitive individuals, especially after prolonged or repeated skin Skin: contact. May bond skin to clothing and release heat, causing burns. Inhalation of vapors is unlikely under normal conditions of use. Vapors of this product may be slightly Inhalation: irritating to the nose, throat and other tissues of the respiratory system. Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing. 4.3 Symptoms of Overexposure: Symptoms of skin overexposure in some sensitive individuals may include redness, itching, and irritation of affected areas. Overexposure of vapor in eyes may cause redness, itching and watering. 4.4 Acute Health Effects: Mild to moderate irritation to skin near affected areas. Vapor of this product may be mildly to moderately irritating to the eyes and mucous membranes. Symptoms of overexposure may include redness, itching, irritation and watering. Chronic Health Effects: 4.5 None known. 4.6 Target Organs: Eyes, Skin, Respiratory System Medical Conditions Aggravated by Exposure: Pre-existing dermatitis, other skin conditions, and disorders of the 47 **HEALTH** 2 target organs (eyes, skin, and respiratory) **FLAMMABILITY** 1 PHYSICAL HAZARDS 1 PROTECTIVE EQUIPMENT В **EYES** SKIN 5. FIREFIGHTING MEASURES Fire & Explosion Hazards: 5.1 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, COx, Hydrocarbons), isocyanate vapor, and traces of hydrogen cyanide is possible. Extinguishing Methods: CO<sub>2</sub>, Dry Chemical, Alcohol Foam (preferred), Dry Chemical. Use water spray to cool containers. 5.2 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 fireexposed 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 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. For <u>large spills</u> (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. HANDLING & STORAGE INFORMATION 7.1 Work & Hygiene Practices: Avoid prolonged or repeated skin contact. Avoid breathing vapors of this product. Use eye protection when using this product. Use in a well-ventilated location (e.g., local exhaust ventilation, fans). After use, wash hands and exposed skin with soap & water. Do not eat, drink or smoke while handling product. 72 Open containers slowly on a stable surface. Keep container closed tightly when not in use. Empty container may Storage & Handling: contain residual amounts of this product; therefore, empty containers should be handled with care. Store containers in a cool, dry location, away from direct sunlight, other light sources, or sources of intense heat. Store away from incompatible materials (see Section 10, Stability and Reactivity). Special Precautions: Open containers slowly on a stable surface. Keep container tightly closed when not in use. Empty containers may 7.3 contain residual amounts of this product; therefore, empty containers should be handled with care.

## SAFETY DATA SHEET

Page 3 of 6

HARBOR FREIGHT TOOLS HFT-96284 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 4/30/2015 8. EXPOSURE CONTROLS & PERSONAL PROTECTION 8.1 Exposure Limits: ACGIH NOHSC OSHA OTHER ppm (mg/m<sup>3</sup>) TLV STEL ES-TWA ES-STEL **ES-PEAK** IDLH CHEMICAL NAME(S) PEL STEL METHYLENEDIPHENYL DI-ISOCYANATE (MDI) MIXED 0.005 NF NF NF NA 0.02 NA NA **ISOMERS** 8.2 General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general Ventilation & Engineering Controls: exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product. Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-wash station) 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. Natural rubber/natural latex - NR (≥0.5mm); Poly Chloroprene - CR (≥ 0.5mm): Nitrile Rubber - NBR (≥0.35mm); Butyl Rubber - IIR (≥0.5mm); Fluorinated Rubber - FKM (≥ 0.4mm). 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: Clear/transparent yellow liquid 9.2 Odor: Weak aromatic 9.3 Odor Threshold: NA 9.4 pH: NA 9.5 Melting Point/Freezing Point: NA Initial Boiling Point/Boiling 9.6 >300 °C (>572 °F) Range: 9.7 Flashpoint: >250 °C (198 °F) 9.8 Upper/Lower Flammability Limits: q q Vapor Pressure: <0.00001 mBar @ 20 °C (diphenylmethane diisocyanate) 9.10 Vapor Density: NA Relative Density: 9 11 1.12 9.12 Solubility: Reacts 9.13 Partition Coefficient (log Pow): NA 9.14 Autoignition Temperature: NA 9.15 Decomposition Temperature: NA 9.16 Viscosity 3,800-6,000 mPa at 25 °C 9.17 Other Information: VOC: 1.0% does not contain solvents (20 g/L - SCAQMD compliant) 10. STABILITY & REACTIVITY

| 10.1 | Stability:                        | Stable under normal conditions; unstable with heat or contamination.   |  |  |  |
|------|-----------------------------------|--|--|--|--|
| 10.2 | Hazardous Decomposition Products: | By exposure to high temperature, hazardous decomposition products may develop, such as isocyanate vapor and mist, carbon dioxide, carbon monoxide, nitrogen oxide and traces of hydrogen cyanide.                                  |  |  |  |
| 10.3 | Hazardous Polymerization:         | Exothermic reaction with amines and alcohols; reacts with water forming heat, CO <sub>2</sub> , and insoluble polyuria. The combined effect of CO <sub>2</sub> and heat can produce enough pressure to rupture a closed container. |  |  |  |
| 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, strong acids and alkalis, reactive metals and strong oxidizing agents.  |  |  |  |
|      |                                   |  |  |  |  |

HARBOR FREIGHT TOOLS
Quality Tools at Ridiculously Low Prices

### SAFETY DATA SHEET

Page 4 of 6 **HFT-96284** 

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision Date: 4/30/2015 11. TOXICOLOGICAL INFORMATION Inhalation: YES 11.1 Routes of Entry: Absorption: YES Ingestion: YES 112 Toxicity Data: This product has not been tested on animals to obtain toxicological data. Toxicology data for some of the components in this mixture, found in scientific literature, and are presented below: Methylenediphenyl Diisocyanate: LD<sub>50</sub> (oral, rat): >2,000 mg/kg. 11.3 Acute Toxicity: Over exposure may cause irritating effects on nose throat and respiratory tract. Prolonged or repeated contact may result in tanning and irritating effects. 11.4 Chronic Toxicity: See section 4.5 11.5 Suspected Carcinogen: NA Reproductive Toxicity: 116 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: The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure. 11.8 Biological Exposure Indices: NE Physician Recommendations: 11.9 Treat symptomatically. 12. ECOLOGICAL INFORMATION Environmental Stability: There is no specific data available for this product. 12.1 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 Waste Disposal Dispose of in accordance with federal, state, provincial and local regulations. Special Considerations 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** IATA (AIR): **NOT REGULATED** IMDG (OCN): 14.3 **NOT REGULATED** 14.4 TDGR (Canadian GND): **NOT REGULATED** 14.5 ADR/RID (EU): **NOT REGULATED** SCT (MEXICO): 14.6 **NOT REGULATED** 14.7 ADGR (AUS) NOT REGULATED 15. REGULATORY INFORMATION SARA Reporting 15.1 This product contains Methylene Diphenyl Diisocyanate (MDI), a substance subject to SARA Title III, section 313 Requirements: reporting requirements 15.2 SARA Threshold Planning There are no specific Threshold Planning Quantities for the components of this product. Quantity: 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 Methylene Diphenyl Diisocyanate (MDI) Mixed Isomers: 2,270 kg (5,000 lbs) Other Federal Requirements: 15.5 NA Other Canadian Regulations: This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS 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. Methylene Diphenyl Diisocyanate (MDI) is found on the following state criteria list: Florida Toxic Substances List (FL), 15.7 State Regulatory Information: Massachusetts Hazardous Substances List (MA), (MI), Minnesota Hazardous Substances List (MN), Pennsylvania Rightto-Know List (PA), and Washington Permissible Exposures List (WA). 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)

HARBOR FREIGHT TOOLS

Quality Teols at Ridiculously Low Prices

# **SAFETY DATA SHEET**

Page 5 of 6 **HFT-96284** 

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

SDS Revision: 1.0

SDS Revision Date: 4/30/2015

|      |  | 15. REGULATORY INFO  | RMATION – cont'd  |  |  |
|------|--|--|---|--|--|
| 15.8 | Other Requirements:                        | 36/37/38-40-42/43-48/20 - Harmful by inhalation Limited evidence of carcinogenic effect. May contain Harmful: danger of serious damage to health be Phrases (S): (1/2-)23-36/37-45 - Keep locked uses the contained of the phrases (S): (1/2-)23-36/37-45 - Keep locked uses the contained of the conta | In Annex I of EU Directive 67/548/EEC:  Isomers: Harmful (Xn). Risk Phrases (R): 20-  In: Irritating to eyes, respiratory system and skin.  Bause sensitization by inhalation and skin contact. By prolonged exposure through inhalation. Safety up and out of reach of children. Do not breathe g and gloves. If swallowed, seek medical advice  |  |  |
|      |  | 16. OTHER INFO   | DRMATION  |  |  |
| 16.1 | Other Information:                         | WARNING! CAUSES SKIN IRRITATION. M<br>EYE IRRITATION. MAY CAUSE RESPIRATO<br>Irritating to eyes, respiratory system and skin.<br>inhalation and skin contact. Harmful: danger of s<br>not breathe fumes. Avoid contact with skin. K  | AY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS ORY IRRITATION. Use only as directed. Harmful by inhalation. Limited evidence of carcinogenic effect. May cause sensitization by serious damage to health by prolonged exposure through inhalation. Do seep container tightly closed in a cool place. Wear suitable protective se of accident tor if you feel unwell seek medical advice immediately |  |  |
| 16.2 | Terms & Definitions:                       | See last page of this Safety Data Sheet.   |   |  |  |
| 16.3 | Occ last page of this duriety bata direct. |  |   |  |  |
| 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   | HARBOR FREIGHT TOOLS Quality Tools at Ridiculously Low Prices   |  |  |
| 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   |   |  |  |

## **SAFETY DATA SHEET**

Page 6 of 6 HFT-96284

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

SDS Revision Date: 4/30/2015

#### **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  | EXPOSURE LIMITS IN AIR:   |  |  |  |  |
| ACGIH   | ACGIH American Conference on Governmental Industrial Hygienists |  |  |  |  |
| С   | 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    |  |  |
|---|-------------------|--|--|
| 1 | 1 Slight Hazard   |  |  |
| 2 | 2 Moderate Hazard |  |  |
| 3 | Severe Hazard     |  |  |
| 4 | Extreme Hazard    |  |  |



#### PERSONAL PROTECTION RATINGS:

| FERSONAL FROTECTION KATINGS. |  |  |  |  |  |
|------------------------------|--|--|--|--|--|
| Α                            |  |  |  |  |  |
| В                            |  |  |  |  |  |
| С                            |  |  |  |  |  |
| D                            |  |  |  |  |  |
| Е                            |  |  |  |  |  |
| F                            |  |  |  |  |  |
|                              |  |  |  |  |  |











**Protective Clothing** & Full Suit

**Dust Respirator** 







**Full Face** 

Airline Hood/Mask or SCBA

#### OTHER STANDARD ABBREVIATIONS:

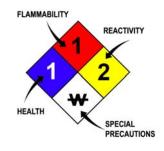
| ML                    | Maximum Limit                      |
|-----------------------|------------------------------------|
| mg/m3                 | milligrams per cubic meter         |
| NA Not Available      |                                    |
| ND Not Determined     |                       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

### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

| FLAMMABILI   | FLAMMABILITY LIMITS IN AIR:   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| Autoignition Temperature Minimum temperature required to initiate combustion in air wit 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       |
| ₩       | Use No Water    |
| ОХ      | Oxidizer        |
| TREFOIL | Radioactive     |
|         |                 |



#### TOXICOLOGICAL INFORMATION:

| LD <sub>50</sub>   | Lethal Dose (solids & liquids) which kills 50% of the exposed animals s |  |  |  |
|--|---|--|--|--|
| LC <sub>50</sub>   | Lethal concentration (gases) which kills 50% of the exposed animal      |  |  |  |
| ppm  | Concentration expressed in parts of material per million parts          |  |  |  |
| TD <sub>io</sub>   | Lowest dose to cause a symptom  |  |  |  |
| TCLo   | Lowest concentration to cause a symptom                                 |  |  |  |
| TD <sub>Io</sub> , LD <sub>Io</sub> , & LD <sub>o</sub> or | Lowest dose (or concentration) to cause lethal or toxic effects         |  |  |  |
| TC, TC <sub>o</sub> , LC <sub>lo</sub> , & LC <sub>o</sub> |   |  |  |  |
| IARC   | International Agency for Research on Cancer                             |  |  |  |
| NTP  | National Toxicology Program   |  |  |  |
| RTECS  | Registry of Toxic Effects of Chemical Substances                        |  |  |  |
| BCF  | Bioconcentration Factor   |  |  |  |
| TL <sub>m</sub>  | Median threshold limit  |  |  |  |
| log K <sub>ow</sub> or log K <sub>oc</sub>                 | 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:

|            | WORLD ENGLANDED MATERIALS IDENTIFICATION (WILLIAM) CTOTEM |           |          |            |            |           |          |  |  |
|------------|---|-----------|----------|------------|------------|-----------|----------|--|--|
| 0          | <b>(4)</b>  | <b>(</b>  | <b>②</b> | <b>(T)</b> | <b>®</b>   |           | R        |  |  |
| 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:

|           |           | M         | *       |           |       | X        | ×       |
|-----------|-----------|-----------|---------|-----------|-------|----------|---------|
| С         | E         | F         | N       | 0         | Т     | Xi       | Xn      |
| Corrosive | Explosive | Flammable | Harmful | Oxidizing | Toxic | Irritant | Harmful |

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

|           |           |          | $\Diamond$  |           |       | $\Diamond$            |                  | *           |
|-----------|-----------|----------|-------------|-----------|-------|-----------------------|------------------|-------------|
| GHS01     | GHS02     | GHS03    | GHS04       | GHS05     | GHS06 | GHS07                 | GHS08            | GHS09       |
| Explosive | Flammable | Oxidizer | Pressurized | Corrosive | Toxic | Harmful<br>Irritating | Health<br>Hazard | Environment |