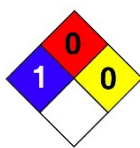






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|--|--|--|-----------|------------|-------------------|---|------|--------|---------|------------------------------|------|---|------|-------|
| JOHN PAUL MITCHELL SYSTEMS                                   |  | <h1 style="text-align: center;">SAFETY DATA SHEET</h1>   |           |            |                   |   |      |        |         |                              |      | Page 1 of 5<br>PM-192   |      |       |
| Prepared to OSHA, ACC, ANSI, WHSR, WHMIS, GHS & EU Standards |  |  |           |            | SDS Revision: 1.0 |   |      |        |         | SDS Revision Date: 1/31/2023 |      |   |      |       |
| <b>1. PRODUCT &amp; COMPANY IDENTIFICATION</b>               |  |  |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 1.1  | Product Name:                              | <b>AWAPUHI WILD GINGER HYDRASOFT CONDITIONER</b>   |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 1.2  | Chemical Name:                             | NA   |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 1.3  | Synonyms:                                  | Hydrasoft Conditioner  |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 1.4  | Product Uses & Restrictions:               | Hydrating Conditioner  |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 1.5  | Distributor's Name:                        | John Paul Mitchell Systems   |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 1.6  | Distributor's Address:                     | 20705 Centre Pointe Parkway, Santa Clarita, CA 91350 USA   |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 1.7  | Emergency Phone:                           | <b>CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300</b>   |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 1.8  | Business Phone / Fax:                      | +1 (661) 298-0390 / +1 (661) 298-0390  |           |            |                   |   |      |        |         |                              |      |   |      |       |
| <b>2. HAZARDS IDENTIFICATION</b>                             |  |  |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 2.1  | Hazard Identification:                     | Prepared in accordance with UN Globally Harmonized standards. Intended to comply with OSHA 29 CFR 1910.1200. Canadian WHMIS and Australian Work Health and Safety<br><b>WARNING! CAUSES EYE IRRITATION.</b><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+P317 – If eye irritation persists, get medical help.   |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 2.3  | Additional Hazards:                        | <b>KEEP LOCKED UP AND OUT OF REACH OF CHILDREN.</b><br><b>Note:</b> contains a tree nut <u>Macadamia Integrifolia Seed Oil</u>   |           |            |                   |   |      |        |         |                              |      |   |      |       |
| <b>3. COMPOSITION &amp; INGREDIENT INFORMATION</b>           |  |  |           |            |                   |   |      |        |         |                              |      |   |      |       |
| CHEMICAL NAME(S)   |  | CAS No.  | RTECS No. | EINECS No. | %                 | EXPOSURE LIMITS IN AIR (mg/m <sup>3</sup> ) |      |        |         |                              |      |   |      | OTHER |
|  |  |  |           |            |                   | ACGIH                                       |      | NOHSC  |         |                              | OSHA |   |      |       |
|  |  |  |           |            |                   | ppm   |      | ppm    |         |                              | ppm  |   |      |       |
|  |  |  |           |            |                   | TLV   | STEL | ES-TWA | ES-STEL | ES-PEAK                      | PEL  | STEL  | IDLH |       |
| AQUA (WATER/EAU)   |  | 7732-18-5  | ZC0110000 | 231-791-2  | 70-85             | NA  | NA   | NF     | NF      | NF                           | NA   | NA  | NA   |       |
| PROPRIETARY BLEND  |  | NA   | NA        | NA         | 15-30             | NA  | NA   | NF     | NF      | NF                           | NA   | NA  | NA   |       |
| FRAGRANCE (PARFUM)   |  | NA   | NA        | NA         | 0-1               | NA  | NA   | NF     | NF      | NF                           | NA   | NA  | NA   |       |
| <b>4. FIRST AID MEASURES</b>                                 |  |  |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 4.1  | First Aid:                                 | <u>Ingestion:</u> If ingested, do not induce vomiting. 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><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. If irritation occurs, contact a physician.<br><u>Skin:</u> If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately.<br><u>Inhalation:</u> Remove victim to fresh air at once. |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 4.2  | Effects of Exposure:                       | <u>Ingestion:</u> If product is swallowed, may cause nausea, vomiting and/or diarrhea.<br><u>Eyes:</u> Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering.<br><u>Skin:</u> None expected. In some sensitive individuals, the product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in rare instances.<br><u>Inhalation:</u> None expected.  |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 4.3  | Symptoms of Overexposure:                  | Overexposure in eyes may cause redness, itching and watering. In some sensitive individuals, symptoms of skin overexposure may include redness, itching, and irritation of affected areas.   |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 4.4  | Acute Health Effects:                      | Moderate irritation to eyes. In some sensitive individuals, moderate irritation to skin near affected areas.   |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 4.5  | Chronic Health Effects:                    | No harmful or chronic health effects are expected to occur from a single accidental ingestion.   |           |            |                   |   |      |        |         |                              |      |   |      |       |
| 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).   |           |            |                   |   |      |        |         |                              |      | <b>HEALTH</b> <b>1</b><br><b>FLAMMABILITY</b> <b>0</b><br><b>PHYSICAL HAZARDS</b> <b>0</b><br><b>PROTECTIVE EQUIPMENT</b> <b>A</b><br><b>EYES</b> |      |       |

|  |  |  |           |            |                   |               |                              |                       |   |            |
|--|--|--|-----------|------------|-------------------|---------------|------------------------------|-----------------------|---|------------|
| JOHN PAUL MITCHELL SYSTEMS                                   |  | SAFETY DATA SHEET  |           |            |                   |               |                              | Page 2 of 5<br>PM-192 |   |            |
| Prepared to OSHA, ACC, ANSI, WHSR, WHMIS, GHS & EU Standards |  |  |           |            | SDS Revision: 1.0 |               | SDS Revision Date: 1/31/2023 |                       |   |            |
| 5. FIREFIGHTING MEASURES                                     |  |  |           |            |                   |               |                              |                       |   |            |
| 5.1  | Fire & Explosion Hazards:                    | This product is non-flammable. When exposed to high temperatures, may produce hazardous decomposition products such as oxides of carbon (e.g., CO, CO <sub>2</sub> ) and nitrogen (e.g., NO <sub>x</sub> ) and smoke.  |           |            |                   |               |                              |                       |    |            |
| 5.2  | Extinguishing Methods:                       | Water, Foam, CO <sub>2</sub> , Dry Chemical  |           |            |                   |               |                              |                       |   |            |
| 5.3  | Firefighting Procedures:                     | 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. 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 (PPE).<br>For <u>small spills</u> (e.g., < 1 gallon (3.8 L)) or <u>large spills</u> (e.g., ≥ 1 gallon (3.8 L)), wear appropriate personal protective equipment (e.g., goggles, gloves). 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. |           |            |                   |               |                              |                       |   |            |
| 7. HANDLING & STORAGE INFORMATION                            |  |  |           |            |                   |               |                              |                       |   |            |
| 7.1  | Work & Hygiene Practices:                    | Do not eat, drink, or smoke while handling this product.   |           |            |                   |               |                              |                       |   |            |
| 7.2  | Storage & Handling:                          | Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans). Keep away from excessive heat and open flames.   |           |            |                   |               |                              |                       |   |            |
| 7.3  | Special Precautions:                         | Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.  |           |            |                   |               |                              |                       |   |            |
| 8. EXPOSURE CONTROLS & PERSONAL PROTECTION                   |  |  |           |            |                   |               |                              |                       |   |            |
| 8.1  | Exposure Limits:<br>ppm (mg/m <sup>3</sup> ) | CHEMICAL NAME(S)   | ACGIH     |            | NOHSC             |               |                              | OSHA                  |   | OTHER      |
|  |  | NA   | TLV<br>NA | STEL<br>NA | ES-TWA<br>NF      | ES-STEL<br>NF | ES-PEAK<br>NF                | PEL<br>NA             | STEL<br>NA  | IDLH<br>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:                              | <b>AVOID EYE CONTACT DUE TO IRRITATION POTENTIAL.</b> 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:                             | If anticipated that prolonged & repeated skin contact will occur during use of this product, wear latex or rubber gloves for routine industrial use. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, of the E.C. member states.  |           |            |                   |               |                              |                       |  |            |
| 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:                                  | White to off-white, viscous opaque cream   |           |            |                   |               |                              |                       |   |            |
| 9.2  | Odor:  | Ginger tea mango   |           |            |                   |               |                              |                       |   |            |
| 9.3  | Odor Threshold:                              | NA   |           |            |                   |               |                              |                       |   |            |
| 9.4  | pH:  | 4.00-5.00  |           |            |                   |               |                              |                       |   |            |
| 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   | Specific Gravity                             | 0.98-1.02  |           |            |                   |               |                              |                       |   |            |
| 9.12   | Solubility:                                  | NA   |           |            |                   |               |                              |                       |   |            |

|  |   |  |     |                   |     |                              |     |
|--|---|--|-----|-------------------|-----|------------------------------|-----|
| JOHN PAUL MITCHELL SYSTEMS   |   | <b>SAFETY DATA SHEET</b>   |     |                   |     | Page 3 of 5<br><b>PM-192</b> |     |
| Prepared to OSHA, ACC, ANSI, WHSR, WHMIS, GHS & EU Standards   |   |  |     | SDS Revision: 1.0 |     | SDS Revision Date: 1/31/2023 |     |
| <b>9. PHYSICAL &amp; CHEMICAL PROPERTIES – cont'd</b>  |   |  |     |                   |     |                              |     |
| 9.13   | Partition Coefficient (log P <sub>ow</sub> ): | NA   |     |                   |     |                              |     |
| 9.14   | Autoignition Temperature:                     | NA   |     |                   |     |                              |     |
| 9.15   | Decomposition Temperature:                    | NA   |     |                   |     |                              |     |
| 9.16   | Viscosity:                                    | NA   |     |                   |     |                              |     |
| 9.17   | Other Information:                            | NA   |     |                   |     |                              |     |
| <b>10. STABILITY &amp; REACTIVITY</b>  |   |  |     |                   |     |                              |     |
| 10.1   | Stability:                                    | This product is stable.  |     |                   |     |                              |     |
| 10.2   | Hazardous Decomposition Products:             | Oxides of carbon (CO, CO <sub>2</sub> ) and sulfur (SO <sub>2</sub> ).   |     |                   |     |                              |     |
| 10.3   | Hazardous Polymerization:                     | Will not occur.  |     |                   |     |                              |     |
| 10.4   | Conditions to Avoid:                          | Extreme temperatures.  |     |                   |     |                              |     |
| 10.5   | Incompatible Substances:                      | None known.  |     |                   |     |                              |     |
| <b>11. TOXICOLOGICAL INFORMATION</b>   |   |  |     |                   |     |                              |     |
| 11.1   | Routes of Entry:                              | Inhalation:  | YES | 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, but 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:                         | This product does not contain any chemicals known to the State of California to cause cancer or other reproductive harm.   |     |                   |     |                              |     |
| 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 4.3.   |     |                   |     |                              |     |
| 11.8   | Biological Exposure Indices:                  | NE   |     |                   |     |                              |     |
| 11.9   | Physician Recommendations:                    | Treat symptomatically.   |     |                   |     |                              |     |
| <b>12. ECOLOGICAL INFORMATION</b>  |   |  |     |                   |     |                              |     |
| 12.1   | Environmental Stability:                      | There is no specific data available for this product.  |     |                   |     |                              |     |
| 12.2   | Effects on Plants & Animals:                  | There is no specific data available for this product.  |     |                   |     |                              |     |
| 12.3   | Effects on Aquatic Life:                      | There is no specific data available for this product. WGK: 1 (low hazard to waters)  |     |                   |     |                              |     |
| <b>13. DISPOSAL CONSIDERATIONS</b>   |   |  |     |                   |     |                              |     |
| 13.1   | Waste Disposal:                               | Dispose of in accordance with federal, state and local regulations.  |     |                   |     |                              |     |
| 13.2   | Special Considerations:                       | NA   |     |                   |     |                              |     |
| <b>14. TRANSPORTATION INFORMATION</b>  |   |  |     |                   |     |                              |     |
| 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  |     |                   |     |                              |     |
| <b>15. REGULATORY INFORMATION</b>  |   |  |     |                   |     |                              |     |
| 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.   |     |                   |     |                              |     |
| 15.4   | CERCLA Reportable Quantity (RQ):              | NA   |     |                   |     |                              |     |
| 15.5   | Other Federal Requirements:                   | This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics). This material does not contain any hazardous air pollutants. None of the components in this product are listed as priority pollutants under the CWA. None of the components in this product are listed as toxic pollutants under the CWA. |     |                   |     |                              |     |

|  |                               |   |  |                              |
|--|-------------------------------|---|--|------------------------------|
| JOHN PAUL MITCHELL SYSTEMS                                   |                               | <b>SAFETY DATA SHEET</b>  |  | Page 4 of 5<br><b>PM-192</b> |
| Prepared to OSHA, ACC, ANSI, WHSR, WHMIS, GHS & EU Standards |                               |   | SDS Revision: 1.0  | SDS Revision Date: 1/31/2023 |
| <b>15. REGULATORY INFORMATION – cont'd</b>                   |                               |   |  |                              |
| 15.6   | Other Canadian Regulations:   | This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR. 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.  |  |                              |
| 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). This product does not contain any chemicals known to the State of California to cause cancer or other reproductive harm. 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |  |                              |
| 15.8   | Other Requirements:           | NA  |  |                              |
| <b>16. OTHER INFORMATION</b>                                 |                               |   |  |                              |
| 16.1   | Other Information:            | <b>WARNING! CAUSES EYE IRRITATION.</b> For external use only. Use only as directed. Discontinue use immediately if irritation develops. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Keep container tightly closed when not in use. <b>KEEP OUT OF REACH OF CHILDREN.</b><br><b>Note:</b> contains a tree nut <i>Macadamia Integrifolia</i> Seed Oil   |  |                              |
| 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 & John Paul Mitchell Systems', 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:                 | <b>John Paul Mitchell Systems</b><br>20705 Centre Pointe Parkway,<br>Santa Clarita, CA 91350 USA<br>Tel: +1 (661) 298-0400<br>Fax: +1 (661) 298-0390  | <b>JOHN PAUL MITCHELL SYSTEMS</b>  |                              |
| 16.5   | Prepared by:                  | <b>ShipMate, Inc.</b><br>P.O. Box 787<br>Sisters, Oregon 97759-0787 USA<br>Tel: +1 (310) 370-3600<br>Fax: +1 (310) 370-5700<br><a href="http://www.shipmate.com">http://www.shipmate.com</a>  |  |                              |

Prepared to OSHA, ACC, ANSI, WHSR, WHMIS, GHS &amp; EU Standards

SDS Revision: 1.0

SDS Revision Date: 1/31/2023

## 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:

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

## EXPOSURE LIMITS IN AIR:

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

## FIRST AID MEASURES:

|            |  |
|------------|--|
| <b>CPR</b> | 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 &amp; REACTIVITY RATINGS:

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

|                            |
|----------------------------|
| <b>HEALTH</b>              |
| <b>FLAMMABILITY</b>        |
| <b>PHYSICAL HAZARDS</b>    |
| <b>PERSONAL PROTECTION</b> |

## PERSONAL PROTECTION RATINGS:

|          |  |
|----------|--|
| <b>A</b> |  |
| <b>B</b> |  |
| <b>C</b> |  |
| <b>D</b> |  |
| <b>E</b> |  |
| <b>F</b> |  |

|          |  |
|----------|--|
| <b>G</b> |  |
| <b>H</b> |  |
| <b>I</b> |  |
| <b>J</b> |  |
| <b>K</b> |  |
| <b>X</b> | Consult your supervisor or SOPs for special handling directions. |

|                      |                                   |                                  |                           |
|----------------------|-----------------------------------|----------------------------------|---------------------------|
|                      |                                   |                                  |                           |
| Safety Glasses       | Splash Goggles                    | Face Shield & Protective Eyewear | Gloves                    |
|                      |                                   |                                  |                           |
| Boots                | Protective 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:

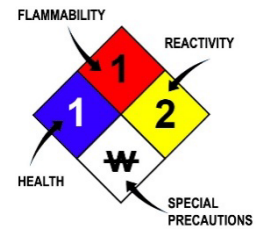
|                |  |
|----------------|--|
| <b>Carc</b>    | Carcinogenic                                     |
| <b>Irrit</b>   | Irritant   |
| <b>NA</b>      | Not Available                                    |
| <b>NR</b>      | No Results                                       |
| <b>ND</b>   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

## NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

| FLAMMABILITY LIMITS IN AIR:     |   |
|---------------------------------|---|
| <b>Autoignition Temperature</b> | Minimum temperature required to initiate combustion in air with no other source of ignition   |
| <b>LEL</b>                      | Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source  |
| <b>UEL</b>                      | 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  |
| <b>ACD</b>     | Acidic          |
| <b>ALK</b>     | Alkaline        |
| <b>COR</b>     | Corrosive       |
| <b>W</b>       | Use No Water    |
| <b>OX</b>      | Oxidizer        |
| <b>TREFOIL</b> | Radioactive     |



## TOXICOLOGICAL INFORMATION:

|   |   |
|---|---|
| <b>LD<sub>50</sub></b>  | Lethal Dose (solids & liquids) which kills 50% of the exposed animals |
| <b>LC<sub>50</sub></b>  | Lethal concentration (gases) which kills 50% of the exposed animal    |
| <b>ppm</b>  | Concentration expressed in parts of material per million parts        |
| <b>TD<sub>10</sub></b>  | Lowest dose to cause a symptom  |
| <b>TCLO</b>   | Lowest concentration to cause a symptom                               |
| <b>TD<sub>10</sub>, LD<sub>10</sub>, &amp; LD<sub>50</sub> or TC, TC<sub>10</sub>, LC<sub>10</sub>, &amp; LC<sub>50</sub></b> | Lowest dose (or concentration) to cause lethal or toxic effects       |
| <b>IARC</b>   | International Agency for Research on Cancer                           |
| <b>NTP</b>  | National Toxicology Program   |
| <b>RTECS</b>  | Registry of Toxic Effects of Chemical Substances                      |
| <b>BCF</b>  | Bioconcentration Factor   |
| <b>TL<sub>m</sub></b>   | Median threshold limit  |
| <b>log K<sub>OW</sub> or log K<sub>OC</sub></b>   | Coefficient of Oil/Water Distribution                                 |

## REGULATORY INFORMATION:

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