# SAFETY DATA SHEET

Prepared to OSHA, ACC, ANSI, WHSR, WHMIS, GHS & EU Standards | SDS Revision: 1.1 | SDS Revision Date: 12/14/2019

## 1. PRODUCT & COMPANY IDENTIFICATION

| | | |
|---|---|---|
| 1.1 | Product Name: | **PETRA DOT 4 BRAKE FLUID** |
| 1.2 | Chemical Name: | Triethylene Glycol Monomethyl Borate Ester Mixture |
| 1.3 | Synonyms: | 6432 |
| 1.4 | Trade Names: | Petra DOT 4 Brake Fluid |
| 1.5 | Product Use: | Brake Fluid |
| 1.6 | Distributor's Name: | Petra Oil NZ |
| 1.7 | Distributor's Address: | 50 Jacobs Lane, Ngaruawahia 3792, New Zealand |
| 1.8 | Emergency Phone: | **NZ NATIONAL POISONS CENTRE (0800) 764 766** |
| 1.9 | Business Phone / Fax: | Tel: +64 (21) 771 703 |

## 2. HAZARDS IDENTIFICATION

**2.1 Hazard Identification:**

This product is classified as a **HAZARDOUS SUBSTANCE** but not as **DANGEROUS GOODS** according to the classification criteria of WHSR and ADG Code (Australia).

**DANGER! HARMFUL IF SWALLOWED. CAUSES SERIOUS EYE DAMAGE. HARMFUL IF INHALED. MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.**

Classification: Acute Tox. 4 (oral), Acute Tox. (inh), Eye Dam. 1, STOT RE 2

**2.2 Label Elements:**

Hazard Statements (H): H302 - Harmful if swallowed. H318 - Causes serious eye damage. H332 - Harmful if inhaled. H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements (P): P260 - Do not breathe fume/ mist/vapors/spray. P264 - Wash hands and exposed skin areas with soap and warm water thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P301+P312 - If swallowed, call a doctor if you feel unwell. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER/doctor/… P312 - Call a POISON CENTER/doctor/…/if you feel unwell P314 - Get medical advice and attention if you feel unwell. P330 - If swallowed, rinse mouth. P501 – Dispose of contents/container to licensed treatment, storage, recycling or disposal facility.

**2.3 Other Warnings:**

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. If medical advice is needed, have product container or label at hand. **KEEP OUT OF REACH OF CHILDREN**.

## 3. COMPOSITION & INGREDIENT INFORMATION

| CHEMICAL NAME(S) | CAS No. | RTECS No. | EINECS No. | % | EXPOSURE LIMITS IN AIR (mg/m³) ACGIH ppm TLV | ACGIH ppm STEL | NOHSC ppm ES-TWA | NOHSC ppm ES-STEL | NOHSC ppm ES-PEAK | OSHA ppm PEL | OSHA ppm STEL | OSHA ppm IDLH | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRIETHYLENE GLYCOL MONOMETHYL BORATE ESTER | 71243-41-9 | NA | 615-261-1 | 15-40 | NA | NA | NF | NF | NF | NA | NA | NA | |
| | Acute Tox. 4 (oral), Acute Tox. (dermal), Acute Tox. (inh), Eye Irrit. 2B; H302, H312, H332, H320 | | | | | | | | | | | | |
| TRIETHYLENE GLYCOL MONOMETHYL ETHER | 112-35-6 | KL6390000 | 203-962-1 | 15-40 | NA | NA | NF | NF | NF | NA | NA | NA | |
| METHOXY POLYETHYLENE GLYCOL | 9004-74-4 | NA | 618-394-3 | 10-30 | NA | NA | NF | NF | NF | NA | NA | NA | |
| DIETHYLENE GLYCOL | 111-46-6 | NA | 203-872-2 | ≤ 5 | NA | NA | NF | NF | NF | NA | NA | NA | |
| | Acute Tox. 4 (oral), STOT RE 2; H302, H373 | | | | | | | | | | | | |
| TRIETHYLENE GLYCOL MONOBUTYL ETHER | 143-22-6 | NA | 205-592-6 | ≤ 5 | NA | NA | NF | NF | NF | NA | NA | NA | |
| | Eye Dam. 1; H318 | | | | | | | | | | | | |
| TETRAETHYLENE GLYCOL | 112-60-7 | NA | 203-989-9 | ≤ 2 | NA | NA | NF | NF | NF | NA | NA | NA | |
| POLYETHYLENE GLYCOL 200-600 | 25322-68-3 | NA | 500-038-2 | ≤ 2 | NA | NA | NF | NF | NF | NA | NA | NA | |
| 3,6,9,12-TETRAOXAHEXA-DECANE-1-OL | 1559-34-8 | NA | 216-322-1 | ≤ 2 | NA | NA | NF | NF | NF | NA | NA | NA | |

## 4. FIRST AID MEASURES

| | | | |
|---|---|---|---|
| 4.1 | First Aid: | Ingestion: | DO NOT INDUCE VOMITING. Contact Poison Control Center or local emergency telephone number for assistance and instructions. If you feel unwell, seek medical advice (show the label where possible). If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration. |
| | | Eyes: | If product gets in the eyes, flush eyes thoroughly with copious amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If the eyes or face become swollen during or following use, consult a physician or emergency room immediately. |
| | | Skin: | Remove contaminated clothing and wash affected areas with soap and water. If discomfort persists and/or the skin reaction worsens, contact a physician immediately. Do not wear contaminated clothing until after it has been properly cleaned. |
| | | Inhalation: | Remove victim to fresh air at once. Under extreme conditions, if breathing stops, perform artificial respiration. Seek immediate medical attention. |
| 4.2 | Effects of Exposure: | Ingestion: | Irritation to the gastrointestinal tract. Swallowing a small quantity of this material will result in serious health hazard. |
| | | Eyes: | Irritation upon direct contact. Symptoms may include stinging, tearing, redness and swelling. |
| | | Skin: | Mildly irritating. Prolonged or repeated skin contact can result in defatting, drying of the skin with symptoms of redness, stinging. |
| | | Inhalation: | Inhalation may cause irritation to the respiratory tract (nose, throat and lungs). May be fatal if swallowed and enters airways. |
| 4.3 | Symptoms of Overexposure: | Ingestion: | Nausea, intestinal discomfort, vomiting and/or diarrhea. |
| | | Eyes: | Overexposure in eyes may cause redness, itching and watering. |
| | | Skin: | Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some individuals. |
| | | Inhalation: | May cause irritation or asthma-like symptoms. |
| 4.4 | Acute Health Effects: | Moderate irritation to eyes and skin near affected areas. Harmful if inhaled. Swallowing a small quantity of this material will result in serious health hazard. Causes serious eye damage. | |
| 4.5 | Chronic Health Effects: | Danger of serious damage to health by prolonged exposure through inhalation. | |
| 4.6 | Target Organs: | Eyes, Skin | |
| 4.7 | Medical Conditions Aggravated by Exposure: | Pre-existing skin and eye disorders. | |

| | |
|---|---|
| **HEALTH** | **2** |
| **FLAMMABILITY** | **1** |
| **PHYSICAL HAZARDS** | **0** |
| **PROTECTIVE EQUIPMENT** | **B** |
| **EYES** | **SKIN** |

## 5. FIREFIGHTING MEASURES

| | | |
|---|---|---|
| 5.1 | Fire & Explosion Hazards: | If involved in a fire, this product may decompose at high temperatures to form toxic gases (e.g., CO, $CO_X$, hydrocarbons). |
| 5.2 | Extinguishing Methods: | Use water spray or fog for cooling exposed containers. |
| 5.3 | Firefighting Procedures: | As with any fire, firefighters should wear appropriate protective equipment including a MSHA/NIOSH approved or equivalent self-contained breathing apparatus (SCBA) and protective clothing. Treat as hot oil. Hazardous decomposition products may be released. Thermal degradation may produce oxides of carbon, and/or nitrogen, hydrocarbons and/or derivatives. Fire should be fought from a safe distance. 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. |


## 6. ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|---|
| 6.1 | Spills: | Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment.<br>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.<br>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). 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 municipal sewers and open bodies of water. |

## 7. HANDLING & STORAGE INFORMATION

| | | |
|---|---|---|
| 7.1 | Work & Hygiene Practices: | Avoid prolonged contact with the product. Avoid breathing vapors of this product. Use in a well-ventilated location (e.g., local exhaust ventilation, fans). After use, wash hands and exposed skin with soap and water. Do not eat, drink or smoke while handling product. |
| 7.2 | Storage & Handling: | Open containers slowly on a stable surface. Keep container closed tightly when not in use. Empty container may 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). |
| 7.3 | Special Precautions: | Open containers slowly on a stable surface. Keep container tightly closed when not in use. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. |

## 8. EXPOSURE CONTROLS & PERSONAL PROTECTION

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

| | | | |
|---|---|---|---|
| 8.2 | Ventilation & Engineering Controls: | Use general/dilution or local exhaust ventilation as needed to ensure that occupational exposure limits are not exceeded. Do not use in enclosed spaces. 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: | Vaporization or misting is not expected at ambient temperatures. Therefore, the need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist pre-filter should be used. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134). | |
| 8.4 | Eye Protection: | Wear protective eyewear (e.g., safety glasses with side-shield) at all times when handling this product. Always use protective eyewear when cleaning spills or leaks. Contact lenses pose a special hazard; soft lenses may absorb and concentrate irritants. Have suitable eye wash water available. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). |  |
| 8.5 | Hand Protection: | Use gloves constructed of chemical-resistant materials such as neoprene or heavy nitrile rubber if contact is expected. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, or the EU member states. |  |
| 8.6 | Body Protection: | Avoid prolonged and/or repeated skin contact. Use clean and impervious protective clothing (e.g., neoprene or Tyvek®). Protective clothing should include long-sleeves, apron, boots and additional facial protection. If necessary, refer to appropriate standards of Canada, the EU member states, or U.S. OSHA. | |

## 9. PHYSICAL & CHEMICAL PROPERTIES

| | | |
|---|---|---|
| 9.1 | Appearance: | Colorless to light yellow liquid. liquid. |
| 9.2 | Odor: | Mild, characteristic odor. |
| 9.3 | Odor Threshold: | NA |
| 9.4 | pH: | 8.6 |
| 9.5 | Melting Point/Freezing Point: | < -50 °C |
| 9.6 | Initial Boiling Point/Boiling Range: | > 243 °C (< 469 °F) |
| 9.7 | Flashpoint: | > 121 °C (< 250 °F) |
| 9.8 | Upper/Lower Flammability Limits: | NA |
| 9.9 | Vapor Pressure: | < 0.01 mm Hg |
| 9.10 | Vapor Density: | NA |
| 9.11 | Relative Density: | 1.06 |
| 9.12 | Solubility: | Negligible |
| 9.13 | Partition Coefficient (log $P_{ow}$): | NA |
| 9.14 | Autoignition Temperature: | > 310 °C (> 590 °F) |
| 9.15 | Decomposition Temperature: | NA |
| 9.16 | Viscosity: | NA |
| 9.17 | Other Information: | VOC: 0.5% |

## 10. STABILITY & REACTIVITY

| | | |
|---|---|---|
| 10.1 | Stability: | Relatively stable under ambient conditions when stored properly. |
| 10.2 | Hazardous Decomposition Products: | If exposed to extremely high temperatures, products of thermal decomposition may include irritating vapors and toxic gases (e.g., oxides of carbon & nitrogen). |
| 10.3 | Hazardous Polymerization: | Will not occur. |
| 10.4 | Conditions to Avoid: | Exposure or contact to extreme temperatures, incompatible chemicals, strong light sources, sparks, flame. |
| 10.5 | Incompatible Substances: | Strong oxidizers, peroxides or strong acids or alkalis. |

## 11. TOXICOLOGICAL INFORMATION

| | | |
|---|---|---|
| 11.1 | Routes of Entry: | Inhalation: YES \| Absorption: YES \| Ingestion: NO |
| 11.2 | Toxicity Data: | This product has NOT been tested on animals to obtain toxicology data. Toxicology data, found in scientific literature, is available for some of the components of the product and is presented below.<br>Triethylene Glycol Monomethyl Borate Ester – $LD_{50}$ (oral, rat) > 5,000 mg/kg; $LD_{50}$ (dermal, rabbit): > 2,000 mg/kg;<br>Triethylene Glycol Monomethyl Ether – $LD_{50}$ (oral, rat): 11,865 mg/kg; $LD_{50}$ (dermal, rabbit): 7,455 mg/kg;<br>Diethylene Glycol – $LD_{50}$ (oral, rat): 12,565 mg/kg; $LD_{50}$ (dermal, rabbit): 11,890 mg/kg;<br>Methoxy Polyethylene Glycol 350 – $LD_{50}$ (oral, rat): 22,000 mg/kg; $LD_{50}$ (dermal, rabbit): > 20,000 mg/kg;<br>Triethylene Glycol Monobutyl Ether – $LD_{50}$ (oral, rat) > 5,000 mg/kg; $LD_{50}$ (dermal, rabbit): 3,480 mg/kg;<br>Tetraethylene Glycol – $LD_{50}$ (oral, rat) > 29,000 mg/kg; $LD_{50}$ (dermal, rabbit): > 20,000 mg/kg;<br>Polyethylene Glycol 200-600 – $LD_{50}$ (oral, rat) > 15,000 mg/kg; $LD_{50}$ (dermal, rabbit): > 20,000 mg/kg;<br>3,6,9,12-Tetraoxahexadecane-1-ol – $LD_{50}$ (oral, rat) > 5,000 mg/kg; $LD_{50}$ (dermal, rabbit): > 4,000 mg/kg. |
| 11.3 | Acute Toxicity: | Moderate irritation to eyes and skin near affected areas. Harmful if inhaled. Swallowing a small quantity of this material will result in serious health hazard. Causes serious eye damage. |
| 11.4 | Chronic Toxicity: | Danger of serious damage to health by prolonged exposure through inhalation. |
| 11.5 | Suspected Carcinogen: | NA |
| 11.6 | Reproductive Toxicity: | This product is not reported to cause reproductive effects in humans. |
| | Mutagenicity: | This product is not reported to produce mutagenic effects in humans. |
| | Embryotoxicity: | This product is not reported to produce embryotoxic effects in humans. |
| | Teratogenicity: | This product is not reported to cause teratogenic effects in humans. |
| | Reproductive Toxicity: | This product is not reported to cause reproductive effects in humans. |
| 11.7 | Irritancy of Product: | See Section 4.2 |
| 11.8 | Biological Exposure Indices: | NE |
| 11.9 | Physician Recommendations: | Treat symptomatically. |

## 12. ECOLOGICAL INFORMATION

| | | |
|---|---|---|
| 12.1 | Environmental Stability: | Data, available from scientific literature, is available for some of the components of this mixture and is presented below. Partition Coefficient (log $P_{ow}$): Triethylene Glycol Monomethyl Ether: -1.13, Diethylene Glycol: -1.98, Triethylene Glycol Monobutyl Ether: 0.51, Tetraethylene Glycol: -2.18, Polyethylene Glycol 200-600: -1.2, 3,6,9,12-Tetraoxahexadecane-1-ol: -0.26. Tetraetthylene Glycol: Readily biodegradable in water. 3,6,9,12-Tetraoxahexadecane-1-ol: Not readily biodegradable in water. |
| 12.2 | Effects on Plants & Animals: | There are no specific data available for this product. |
| 12.3 | Effects on Aquatic Life: | Triethylene Glycol Monomethyl Ether - $LC_{50}$ (Pimephales promelas, 96h): >10,000.0 mg/L; Methoxy Polyethylene Glycol - $LC_{50}$ (Pimephales promelas, 96h): > 10,000.0 mg/L; Diethylene Glycol - $LC_{50}$ (Daphnia magna, 24h): > 10,000 mg/L; Triethylene Glycol Monobutyl Ether - $LC_{50}$ (Pimephales promelas, 96h): > 2,400 mg/L; Tetraethylene Glycol - $LC_{50}$ (Carassius auratus, 96h): > 5,000 mg/L; Polyethylene Glycol - $LC_{50}$ (Carassius auratus, 96h): > 5,000 mg/L; 3,6,9,12-tetraoxahexadecane-1-ol: $LC_{50}$ (Daphnia magna, 24h): > 1,000 mg/L. |

## 13. DISPOSAL CONSIDERATIONS

| | | |
|---|---|---|
| 13.1 | Waste Disposal: | Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 3. Dispose of in accordance with local, state, provincial and federal laws and regulations. Disposal of hazardous waste must be through by a licensed treatment, storage or disposal facility (TSDF). |
| 13.2 | Special Considerations: | Contact the federal, state or provincial environmental authority to determine suitability for recycling and or proper disposal requirements |

## 14. TRANSPORTATION INFORMATION

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

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

## 15. REGULATORY INFORMATION

| | | | |
|---|---|---|---|
| 15.1 | SARA Reporting Requirements: | This product does not contain any substances subject to SARA Title III, Section 313 reporting requirements | |
| 15.2 | SARA TPQ: | There are no specific Threshold Planning Quantities for the components of this product. | |
| 15.3 | TSCA Inventory Status: | The components of this product are listed on the TSCA Inventory. | |
| 15.4 | CERCLA Reportable Quantity: | NA | |
| 15.5 | Other Federal Requirements: | NA | |
| 15.6 | Other Canadian Regulations: | This product has been classified according to the hazard criteria of the CPR and the 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. WHMIS D2B (Other Toxic Effects). |  |
| 15.7 | State Regulatory Information: | Toluene is listed on 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), and Wisconsin Hazardous Substances List (WI).<br>Xylene is listed on the following state criteria list(s): FL, MA, MI, MN, NJ, PA, WA, WI.<br>Ethylbenzene is listed on the following state criteria list(s): FL, MA, MN, PA, WA.<br>Paraffinum Liquidum is listed on the following state criteria list(s): MA, MN and WA.<br>Distillates (Petroleum), Hydrotreated Light Paraffinic is listed on the following state criteria list(s): MA.<br>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). | |
| 15.8 | Other Requirements: | All components are either listed on the U.S. TSCA inventory or are not regulated under TSCA under 40 CFR § 720.30.<br>Listed on AICS (Australian Inventory of Chemical Substances)<br>Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on KECI (Korean Existing Chemicals Inventory)<br>New Zealand Inventory of Chemicals (NZIoC) Registration Status:<br>CAS 71243-41-9: Maybe used as a component in a product covered by a group standard but it is not approved for use as a chemical in its own right<br>CAS 112-35-6: May be used as a single component chemical under an appropriate group standard<br>CAS 9004-74-4: May be used as a single component chemical under an appropriate group standard<br>CAS 111-46-6: Maybe used as a component in a product covered by a group standard but it is not approved for use as a chemical in its own right<br>CAS 143-22-6: Maybe used as a component in a product covered by a group standard but it is not approved for use as a chemical in its own right<br>CAS 112-60-7: May be used as a single component chemical under an appropriate group standard<br>CAS 25322-68-3: 25322-68-3<br>CAS 1559-34-8: Maybe used as a component in a product covered by a group standard but it is not approved for use as a chemical in its own right<br>NZIoC Classification: 6.1D, 8.3A, N.O.S. (Subsidiary Hazard) – HSR002624<br>Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) | |

## 16. OTHER INFORMATION

| | | |
|---|---|---|
| 16.1 | Other Information: | **DANGER! HARMFUL IF SWALLOWED. CAUSES SERIOUS EYE DAMAGE. HARMFUL IF INHALED. MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.** Do not breathe fume/ mist/vapors/spray. Wash hands and exposed skin areas with soap and warm water thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. If swallowed, call a doctor if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Call a POISON CENTER/doctor if you feel unwell. Get medical advice and attention if you feel unwell. If swallowed, rinse mouth. **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, Smarter Sorting's & Petra Oil Company'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: | **Petra Oil Company**<br>50 Jacobs Lane<br>Ngaruawahia 3792, New Zealand<br>Tel: +64 (21) 771 703<br>Email: agacita@petraoilco.com |
| 16.5 | Prepared by: | **Smarter Sorting**<br>2900 E. Cesar Chavez Street<br>Austin, TX 78702 USA<br>Tel: +1 (512) 593-2594<br>E-mail: support@smartesorting.com<br>https://www.smartersorting.com |

# DEFINITION OF TERMS

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

**GENERAL INFORMATION:**

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

**EXPOSURE LIMITS IN AIR:**

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

**FIRST AID MEASURES:**

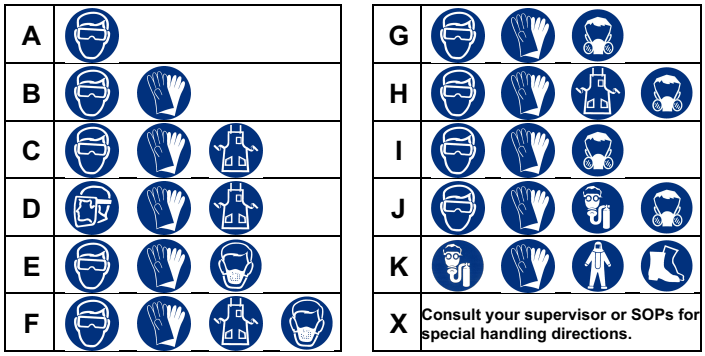
| | |
|---|---|
| **CPR** | Cardiopulmonary resuscitation - method in which a person whose heart has stopped receives manual chest compressions and breathing to circulate blood and provide oxygen to the body. |

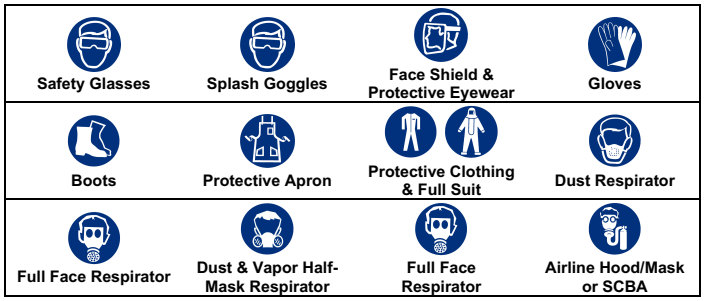
**HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS**

**HEALTH, FLAMMABILITY & REACTIVITY RATINGS:**

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


**PERSONAL PROTECTION RATINGS:**




**OTHER STANDARD ABBREVIATIONS:**

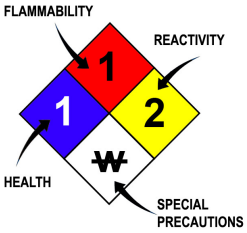
| | |
|---|---|
| **Carc** | Carcinogenic |
| **Irrit** | Irritant |
| **NA** | Not Available |
| **NR** | No Results |
| **ND** | Not Determined |
| **NE** | Not Established |
| **NF** | Not Found |
| **SCBA** | Self-Contained Breathing Apparatus |
| **Sens** | Sensitization |
| **STOT RE** | Specific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

**NATIONAL FIRE PROTECTION ASSOCIATION: NFPA**

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

**HAZARD RATINGS:**

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




**TOXICOLOGICAL INFORMATION:**

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

**REGULATORY INFORMATION:**

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

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

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

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

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