Homax PRODUCTS, INC.

MSDS

MATERIAL SAFETY DATA SHEET

PART I *What is the material and what do I need to know in an emergency?*

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):	**HOMAX TOUGH AS TILE, AEROSOL**
PRODUCT CODES:	2107
PRODUCT USE:	Refinishing Paint
SUPPLIER/MANUFACTURER'S NAME:	**HOMAX PRODUCTS, INC.**
ADDRESS:	200 Westerly Rd. Bellingham, WA 98226
CHEMTREC EMERGENCY NO.:	1-800-424-9300 (United States) 1-703-527-3887 (International Collect)
BUSINESS PHONE:	1-800-729-9029
DATE OF PREPARATION:	August 31, 2009

This product is sold to consumers for household use in containers of relatively small volume (i.e. 5 gallon or less in size). This MSDS has been developed to address safety concerns affecting those individuals working in warehouses and other places where large numbers of these containers are stored, as well as those affecting potential users of this product in industrial /occupational settings. All pertinent health, safety and environmental information have been presented in this document, per the requirements of the US Federal OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canadian WHMIS.

2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	% w/w	EXPOSURE LIMITS IN AIR						
			ACGIH-TLV		OSHA-PEL		NIOSH-REL		
			TWA	STEL	TWA	STEL	TWA	STEL	IDLH
			mg/m^3	mg/m^3	mg/m^3	mg/m^3	mg/m^3	mg/m^3	ppm
Titanium dioxide	13463-67-7	10 – 20	10	NE	15 **	NE	NE	NE	NE
Acetone	67-64-1	10 – 20	500 ppm	750 ppm	1000 ppm	NE	250 ppm	NE	2500 ppm
Xylenes (mixed)	1330-20-7	10 – 20	100 ppm	150 ppm	100 ppm	NE	100 ppm REL	150 ppm	900 ppm
Methyl ethyl ketone	78-93-3	1 – 5	590	885	590	NE	590	NE	3000 ppm
n-Butyl acetate	123-86-4	1 – 5	713	950	710	NE	710	950	
VM&P Naphtha	8032-32-4	1 – 5	1370	NE	NE	NE	350	1800C 15 min.	NE
n-Butyl alcohol	71-36-3	1 – 5	61	NE	300	NE	NE	150C	
Dimethyl ether	115-10-6	30 - 40	NE	NE	NE	NE	NE	NE	NE
Water and ingredients present in concentrations of less than 1% (or less than 0.1% if carcinogens)		Balance	The ingredients in the balance of this product do not contribute significant hazards beyond those described in this document. All pertinent health, safety and environmental information has been presented, per the requirements of the US Federal OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canadian WHMIS.						

NE = Not Established; * = respirable dust; ** = total dust. See Section 16 for Definitions of Terms Used.

NOTE (1): ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-1998 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

PHYISCAL DESCRIPTION: This product is a white liquid aerosol with a hydrocarbon odor.

HEALTH HAZARD: This product can cause irritation to the eyes or skin. This product is harmful if swallowed or inhaled. If vapors, mists or particulates of this product are inhaled, irritation of the nose or throat could occur.

FIRE HAZARD: This product is an extremely flammable aerosol. Vapor can cause flash fire.

REACTIVITY HAZARD: This product is stable under ordinary conditions of use and storage.

ENVIRONMENTAL HAZARD: This product can pose an acute aquatic toxicity if released into the environment in sufficient quantity.

SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE:

The most significant routes of occupational overexposure are inhalation and contact with skin and eyes. The symptoms of overexposure to this product are as follows:

INHALATION: Vapors, mists, sprays, or dusts of this product can cause irritation to the respiratory tract. High concentrations of this product can cause central nervous system depression characterized by headache, nausea, dizziness, confusion, unconsciousness, coma, and death. Overexposure to this product can cause liver, kidney and blood disorders.

CONTACT WITH SKIN or EYES: Contact can cause eye irritation. Prolonged eye exposure may include redness, pain, and tearing. If this product contaminates the eyes, irreversible eye injury can occur. Skin contact can result in redness, pain, ulceration and scarring.

SKIN ABSORPTION: No component of this product is known to penetrate the skin in toxicologically significant quantities.

INGESTION: If this product is swallowed, irritation to the mouth, throat, and other tissues of the gastro-intestinal system can occur. Ingestion of this product can cause liver, kidney and blood disorders, or central nervous system effects. Ingestion of large amounts can cause irritation, pain, vomiting, and diarrhea. If vomiting results in aspiration, chemical pneumonia could follow.

INJECTION: Accidental injection of this product can cause burning, reddening, and swelling in addition to the wound. Symptoms of such exposure can include those described under “Inhalation”, “Contact with Skin or Eyes,” and “Ingestion”.

Hazardous Materials Identification System (HMIS)

Health	**2**
Flammability	**4**
Physical Hazard	**1**
Protective Equipment	**B**

See Section 16 for Definition of Ratings

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in **Lay Terms**.

ACUTE: Depending on the duration of contact, overexposures can irritate the eyes, skin, mucous membranes, and other exposed tissue. Inhalation overexposure can result in central nervous system depression, dizziness, fatigue, vomiting, and headaches.

CHRONIC: Long-term skin or eye contact can result in dermatitis or eye irritation. Over exposure could cause adverse effects to liver, kidney and central nervous system.

TARGET ORGANS: Acute: Skin, eyes, lungs, central nervous system. Chronic: Skin, eyes, liver, kidneys, blood and blood-forming organs.

PART II *What should I do if a hazardous situation occurs?*

4. FIRST-AID MEASURES

Victims of chemical exposure must be taken for medical attention if any adverse effects occur. Take a copy of label and MSDS to physician or health professional with victim.

SKIN EXPOSURE: If this product contaminates the skin, immediately begin decontamination with running water. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim must seek immediate medical attention if any adverse exposure symptoms develop.

EYE EXPOSURE: If this product enters the eyes, open victim's eyes while under gently running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Victim must seek medical attention.

INHALATION: If vapors, mists, or sprays of this product are inhaled, remove victim to fresh air. Victim must seek immediate medical attention if any adverse exposure symptoms develop. If necessary, use artificial respiration to support vital functions.

INGESTION: If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. DO NOT INDUCE VOMITING, unless directed by medical personnel. Have victim rinse mouth with water, if conscious. Never induce vomiting or give a diluent (e.g., water) to someone who is unconscious, having convulsions, or unable to swallow. If contaminated individual is convulsing, maintain an open airway and obtain immediate medical attention.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Persons with pre-existing skin disorders, eye problems, impaired liver, kidney, respiratory or lymphoid system function can be more susceptible to health effects associated with overexposures to this product.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT (propellant & solvents): -42^{0}F (-41.1^{0}C) (Setaflash closed cup)

AUTOIGNITION TEMPERATURE: 662^{o}F (350^{o}C).

FLAMMABLE LIMITS (in air by volume, %):

Lower: 3.4 %
Upper: 27 %

FIRE EXTINGUISHING MATERIALS: Use extinguishing material suitable to the surrounding fire.

Water Spray: OK.	Carbon Dioxide: OK
Foam: OK	Dry Chemical: OK
Halon: OK	Other: Any "ABC" Class.

UNUSUAL FIRE AND EXPLOSION HAZARDS: When involved in a fire, this material may decompose generating dusts, irritating fumes and toxic gases (e.g., Carbon monoxide, Carbon dioxide, and oxides of Nitrogen).

Explosion Sensitivity to Mechanical Impact: Not sensitive under normal conditions.
Explosion Sensitivity to Static Discharge: Not sensitive under normal conditions.

SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas. Isolate from incompatible chemicals (see Section 10, Stability and Reactivity), heat, sparks, electrical equipment, and open flame.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Trained personnel using pre-planned procedures should respond to uncontrolled releases. Proper protective equipment should be used. In case of a spill, clear the affected area and protect people.

RESPONSE TO INCIDENTAL RELEASES: Personnel who have received basic chemical safety training can generally handle small-scale releases, such as 1 container of this product. Respond to incidental chemical releases by wearing gloves, goggles, and appropriate body protection.

RESPONSE TO NON-INCIDENTAL RELEASES: Respond to non-incidental chemical releases of this product, such as the simultaneous puncturing of several containers, by clearing the impacted area and contacting appropriate emergency personnel. Clean up should only be done by qualified personnel. Responders should wear the level of protection appropriate to the type of chemical released, the volume of the material spilled, and the location where the incident has occurred. Minimum Personal Protective Equipment should be Level B: triple-gloves, chemical resistant apron, boots, and splash goggles and Self-Contained Breathing Apparatus. Level B should also be used when oxygen levels are below 19.5% or are unknown.

RESPONSE EQUIPMENT AND PROCEDURES: Absorb spilled liquid with polypads or other suitable absorbent materials. Decontaminate the area thoroughly. Prevent spill rinsate from contamination of storm drains, sewers, soil or groundwater. Place all spill residues in a suitable container and seal. Dispose of in accordance with applicable U.S. Federal, State, or local procedures or appropriate standards of Canada (see Section 13, Disposal Considerations).

PART III *How can I prevent hazardous situations from occurring?*

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after using this product. Do not eat or drink while using this material. Avoid generating dusts, mists or sprays of this product. Remove contaminated clothing immediately.

STORAGE AND HANDLING PRACTICES: All employees who handle this material should be trained to use it safely. Open containers carefully on a stable surface or hold securely when using. Empty containers can contain residual material; therefore, empty containers should be handled with care. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10, Stability and Reactivity). Keep container tightly closed when not in use. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Control possible sources of ignition.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely if necessary. Collect all rinsates and dispose of according to applicable U.S. Federal, State, or local procedures or appropriate Canadian standards.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided in Section 2 (Composition and Information on Ingredients). Ensure eyewash/safety shower stations are available near areas where this product is used.

RESPIRATORY PROTECTION: None needed under normal conditions of use. Use NIOSH approved respirators if ventilation is inadequate to control dusts, mists, fumes or vapors. Maintain airborne contaminate concentrations below guidelines listed in Section 2 (Composition and Information on Ingredients). Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres use of a full-face-piece pressure/demand SCBA or a full face-piece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (29 CFR 1910.134).

EYE PROTECTION: For consumer use, wearing eye protection (such as splash goggles) is advisable. However, for specific industrial applications, enhanced eye protection can be necessary. Use approved safety goggles or safety glasses, as described in OSHA 29 CFR 1910.133. If necessary, refer to U.S. OSHA 29 CFR 1910.133, or appropriate Canadian standards.

HAND PROTECTION: For consumer use, wearing protective gloves is recommended. For specific industrial applications, wear chemical impervious gloves (e.g., Neoprene or Nitrile). If necessary, refer to U.S. OSHA 29 CFR 1910.138 or the appropriate standards of Canada.

BODY PROTECTION: For consumer use, no specific body protection is normally needed. For specific industrial applications, body protection is not normally needed. Use body protection appropriate for task (e.g., Tyvek suit, rubber apron). If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects can pierce the soles of the feet or where employee's feet can be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

HMIS PERSONAL PROTECTIVE EQUIPMENT RATING: Industrial Use situations: B; Safety glasses and gloves.

9. PHYSICAL and CHEMICAL PROPERTIES

RELATIVE VAPOR DENSITY (air = 1): > 1

EVAPORATION RATE (BuAc =1): < 1

SPECIFIC GRAVITY: 0.85 (solvent)

MELTING/FREEZING POINT: Not available.

SOLUBILITY IN WATER: Negligible.

BOILING POINT: -221^{0}F (-141.5^{0}C) (Dimethyl ether)

VAPOR PRESSURE, mm Hg @ 20°C: Not available.

pH: Not applicable.

ODOR THRESHOLD: Not available.

COEFFICIENT OF OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not available.

Weight % V.O.C.: 56.3%.

APPEARANCE, ODOR AND COLOR: This product is a beige liquid aerosol with a hydrocarbon odor.

HOW TO DETECT THIS SUBSTANCE (warning properties): The appearance and odor of this product may act as warning properties in the event of an accidental release.

10. STABILITY and REACTIVITY

STABILITY: Stable under normal circumstances of use and handling.

DECOMPOSITION PRODUCTS: Thermal decomposition of this product may generate dusts, irritating fumes, and toxic gases (e.g., Carbon monoxide, Carbon dioxide, and oxides of Nitrogen).

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: This product is not compatible with strong bases, strong acids, and powerful oxidizers.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid contact with incompatible chemicals.

PART IV *Is there any other useful information about this material?*

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: There are currently no toxicity data available for this product; the following toxicology information is available for components greater than 1% in concentration.

The following data are available for Acetone:

Skin-Rabbit, adult 395 mg open Mild irritation effects
Skin-Rabbit, adult 500 mg/24H Mild irritation effects
Eye effects-Rabbit, adult 3950 mg Severe irritation effects
Eye effects-Rabbit, adult 20 mg/24H Moderate irritation
Oral-Rat LD50:5800 mg/kg
Inhalation-Rat LC50:50,100 mg/m3/8H
Inhalation-Mouse LCLo:110 g/m3/1H
Oral-Rabbit, adult LD50:5340 mg/kg
Skin-Rabbit, adult LD50:20 g/kg

The following data are available for VM & P Naphtha:
Inhalation-Rat LC50:3400 ppm/4H
Intravenous-Mouse LD50:40 mg/kg

The following data are available for n-Butyl acetate:
Oral rat LD_{50}: 10,800 mg/kg;
Inhalation rat LC_{50}: 390 ppm/4H
Skin rabbit LD_{50}: >17,600 mg/kg;
Irritant, skin rabbit (Std. Draize): 500 mg/24H, moderate. Irritant, eye rabbit: 100 mg moderate.

The following data are available for Butyl alcohol:
Oral rat LD_{50}: 790 mg/kg;
Inhalation rat LC_{50}: 8000 ppm/4H;
Skin rabbit LD_{50}: 3400 mg/kg;
Irritation, standard Draize, skin, rabbit, 20 mg/24H moderate;
Irritation, standard Draize, eye, rabbit, 2 mg/24H severe;
Investigated as a mutagen, reproductive effector.

The following data are available for Xylenes:
Eye effects-Human 200 ppm
Skin-Rabbit, adult 100% Moderate irritation effects
Skin-Rabbit, adult 500 mg/24H Moderate irritation effects
Eye effects-Rabbit, adult 87 mg Mild irritation effects
Eye effects-Rabbit, adult 5 mg/24H Severe irritation effects
Cytogenetic Analysis-Saccharomyces cerevisiae 1 mmol/tube
Inhalation-Rat TCLo:50 mg/m^3/6H (female 1-21D post):Reproductive effects
Inhalation-Rat TCLo:50 mg/m^3/6H (female 1-21D post):Teratogenic effects
Oral-Human LDLo:50 mg/kg
Inhalation-Man LCLo:10,000 ppm/6H
Inhalation-Human TCLo:200 ppm: NOSE, Eye effects, Pulmonary system effects
Oral-Rat LD50:4300 mg/kg
Inhalation-Rat LC50:5000 ppm/4H
Intraperitoneal-Rat LD50:2459 mg/kg
Oral-Unspecified effects LD50:4300 mg/kg
Inhalation-Unspecified effects LC50:30 g/m^3

The following data are available for Methyl ethyl ketone:
Eye effects-Human 350 ppm
Skin-Rabbit, adult 500 mg/24H Moderate irritation effects
Skin-Rabbit, adult 402 mg/24H Mild irritation effects
Skin-Rabbit, adult 13,780 mg/24H open Mild irritation effects
Eye effects-Rabbit, adult 80 mg
Sex Chromosome Loss and Nondisjunction-Saccharomyces cerevisiae 33,800 ppm
Inhalation-Rat TCLo:1000 ppm/(6-15D preg):Teratogenic effects
Inhalation-Human TCLo:100 ppm/5M:Irritant effects
Oral-Rat LD50:2737 mg/kg
Inhalation-Rat LC50:23,500 mg/m3/8H
Intraperitoneal-Rat LD50:607 mg/kg
Oral-Mouse LD50:4050 mg/kg
Inhalation-Mouse LC50:40 g/m3/2H
Intraperitoneal-Mouse LD50:616 mg/kg
Skin-Rabbit, adult LD50:6480 mg/kg
Intraperitoneal-Guinea Pig, adult LDLo:2 g/kg
Inhalation-Unspecified effects LC50:38 g/m^3

The following data are available for Dimethyl ether:
Inhalation-Rat LC_{50}: 308 g/m3
Inhalation-Mouse LC_{50}: 386,000 ppm/30M
Inhalation-Rat TC_{Lo}: 2 pph/6H/30W-I

SUSPECTED CANCER AGENT: The following table summarizes the carcinogenicity listing for the components of this product. "NO" indicates that the substance is not considered to be, or suspected to be, a carcinogen by the listed agency.

CHEMICAL	IARC	NTP	NIOSH	OSHA	ACGIH	PROP 65
Titanium dioxide	2B	NO	Ca	NO	A4	NO
Acetone	NO	NO	NO	NO	A4	NO
Xylenes (mixed)	3	NO	NO	NO	A4	NO
Methyl ethyl ketone	NO	NO	NO	NO	NO	NO
n-Butyl acetate	NO	NO	NO	NO	NO	NO
VM&P Naphtha	NO	NO	NO	NO	NO	NO
n-Butyl alcohol	NO	NO	NO	NO	NO	NO
Dimethyl ether	NO	NO	NO	NO	NO	NO

IRRITANCY OF PRODUCT: This product can be irritating to contaminated tissue. Prolonged exposure can lead to tissue damage.

SENSITIZATION TO THE PRODUCT: No component of this product is known to cause sensitization.

TOXICOLOGICAL SYNERGISTIC PRODUCTS: None known.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this product and its components on the human reproductive system.

Mutagenicity: When used as directed, this product is not expected to produce mutagenic effects in humans.
Embryotoxicity: When used as directed, this product is not expected to produce embryotoxic effects in humans.
Teratogenicity: When used as directed, this product is not expected to produce teratogenic effects in humans.
Reproductive Toxicity: When used as directed, this product is not expected to produce reproductive toxicity in humans.

A mutagen is a chemical that causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical that causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical that causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance that interferes in any way with the reproductive process.

BIOLOGICAL EXPOSURES INDICES (BEIs): There are no BEI's established for any component of this product at this time.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY: There is no environmental data for any component of this product at this time.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: This product can be harmful to terrestrial plant and animal life if large volumes of it are released into the environment. Refer to Section 11, "Toxicological Information", for specific animal data.

EFFECT OF CHEMICAL ON AQUATIC LIFE: This product can be harmful to animal life if large volumes of it are released into an aquatic environment. The following aquatic toxicity data is available for components of this product:

The following data are available for Acetone:
Brown Trout/Rainbow trout: LC_{50}: 5540 mg/L (96Hr)
Sunfish: death at 14250 ppm/24Hr
Mosquito fish (turbid water): TL_m: 13000 ppm/ 48Hr;
Fathead minnow: LC_{50}: 7280 - 8120 mg/L
Bluegill: LC_{50}: 8300 mg/L

The following data are available for Butyl alcohol:
Fish: $LC_{50} > 100$ mg/L
Daphnia: $EC_{50} > 100$ mg/L

The following data are available for Xylenes (mixed):
Rainbow trout: LC50: 13.5 mg/L (96Hr)
Goldfish: LD50: 13 mg/L (24Hr)
Fathead minnow: LC50: 46 mg/L (1Hr)
Rainbow trout: LC50: 8.05 mg/L (96Hr) (static condition)
Fathead minnow: LC50: 16.1 mg/L (96Hr) (static condition)
Bluegill: LC50: 16.1 mg/L (96Hr) (flow through conditions)
Water flea: EC50: 3.82 mg/L (48Hr) (flow through conditions)
Photobacterium phosphoreum: EC50: 0.0084 mg/L (24Hr) (Microtox test)

The following data are available for n-Butyl acetate:
Fathead Minnow: LC_{50}: 18 mg/L flow through (96 Hr)
Bluegill/Sunfish: LC_{50}: 100 mg/L static (96 Hr)
Freshwater algea: EC_{50}: 320 mg/L (96 Hr)
Daphnia: EC_{50} 44 mg/L

The following data are available for Methyl ethyl ketone:
Fathead minnow: LC_{50}: 3220 mg/L (96Hr)
Bluegill/sunfish: LC_{50}: 3220 mg/L (96Hr)
Phytobacterium phosphoreum: EC_{50}: 51.9 mg/L (25 min.) (unspecified ria)
Phytobacterium phosphoreum: EC_{50}: 3373 mg/L (30 min.) (Microtox test ria)
Fathead minnow: LC_{50}: 3220 mg/L (96Hr) (Microtox test)
Bluegill TL_m: 5640 to 1690 mg/L to 96 Hr

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: **Consumer Waste:** Dispose of according to pertinent state and local household waste and requirements**. Industrial Use:** Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations or with regulations of Canada.

EPA WASTE NUMBER: Wastes consisting only of this product are RCRA code D001; however, the specific RCRA codes depend on the exact nature of the discarded material.

14. TRANSPORTATION INFORMATION

THIS PRODUCT IS HAZARDOUS PER 49 CFR 172.101, THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Aerosols
HAZARD CLASS NUMBER and DESCRIPTION: 2.1, (Flammable)
UN IDENTIFICATION NUMBER: UN 1950
DOT LABEL(S) REQUIRED: Flammable gas
PACKAGING GROUP: N/A
NORTH AMERICAN RESPONSE GUIDEBOOK NUMBER (2000): 126
MARINE POLLUTANT: No component is designated as a DOT Marine Pollutant.

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: The above-listed DOT basic description applies to this product under the regulations of Transport Canada.

15. REGULATORY INFORMATION

ADDITIONAL U.S. REGULATIONS:
EPA REPORTING REQUIREMENTS: The following reporting requirements are applicable to components of this product:

CHEMICAL	SECTION 302 (40 CFR 355, Appendix A)	SECTION 304 (40 CFR Table 302.4)	SECTION 313 (40 CFR 372.65)
Titanium dioxide	NO	NO	NO
Acetone	NO	5000 lbs RQ	NO
Xylenes (mixed)	NO	100 lbs RQ	NO
Methyl ethyl ketone	NO	5000 lbs RQ	NO
n-Butyl acetate	NO	5000 lbs RQ	NO
VM&P Naphtha	NO	NO	NO
n-Butyl alcohol	NO	5000 lbs RQ	NO
Dimethyl ether	NO	NO	NO

U.S. SARA SECTION 311/312 FOR PRODUCT: Acute health effects; chronic health effects; flammable.
U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory.
OTHER U.S. FEDERAL REGULATIONS: Not applicable.

ADDITIONAL CANADIAN REGULATIONS:
CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are listed on the DSL Inventory.
CANADIAN WHMIS SYMBOLS: A - Compressed gas
B2 - Flammable and combustible material - Flammable liquid
D2A - Poisonous and infectious material – Other effects – Very Toxic

D2B - Poisonous and infectious material – Other effects – Toxic

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

DISCLAIMER: THIS INFORMATION IS PROVIDED IN GOOD FAITH BUT WITHOUT EXPRESS OR IMPLIED WARRANTY. BUYER ASSUMES ALL RESPONSIBILITY FOR SAFETY AND USE NOT IN ACCORDANCE WITH LABEL INSTRUCTIONS. JUDGEMENTS AS TO THE SUITABILITY OF INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES ARE NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, AS MANUFACTURER OR DISTRIBUTOR, WE EXTEND NO WARRANTIES, MAKE NO REPRESENTATIONS, AND ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF SUCH INFORMATION FOR APPLICATION TO THE INDIVIDUAL'S PURPOSES OR THE CONSEQUENCES OF ITS USE

DEFINITIONS OF TERMS

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

CAS #: This is the Chemical Abstract Service Number that uniquely identifies each compound.

ACGIH - American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits.

TLV - Threshold Limit Value - an airborne concentration of a substance that represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour Time Weighted Average **(TWA)**, the 15-minute Short Term Exposure Limit, and the instantaneous Ceiling Level **(C)**. Skin absorption effects must also be considered.

OSHA - U.S. Occupational Safety and Health Administration.

PEL - Permissible Exposure Limit - This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are indicated. The phrase, "Vacated 1989 PEL," is placed next to the PEL that was vacated by Court Order.

IDLH - Immediately Dangerous to Life and Health **-** This level represents a concentration from which one can escape within 30-minutes without suffering escape-preventing or permanent injury. **The DFG - MAK** is the Republic of Germany's Maximum Exposure Level, similar to the U.S. PEL. **NIOSH** is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. **O**ccupational **S**afety and **H**ealth **A**dministration (**OSHA**). NIOSH issues exposure guidelines called **R**ecommended **E**xposure **L**evels (**REL**s). When no exposure guidelines are established, an entry of **NE** is made for reference.

HAZARD RATINGS:

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: Health Hazard: **0** (minimal acute or chronic exposure hazard); **1** (slight acute or chronic exposure hazard); **2** (moderate acute or significant chronic exposure hazard); **3** (severe acute exposure hazard; onetime overexposure can cause permanent injury and may be fatal); **4** (extreme acute exposure hazard; onetime overexposure can be fatal). Flammability Hazard: **0** (minimal hazard); **1** (materials that require substantial pre-heating before burning); **2** (combustible liquid or solids; liquids with a flash point of 38-93°C [100-200°F]); **3** (Class IB and IC flammable liquids with flash points below 38°C [100°F]); **4** (Class IA flammable liquids with flash points below 23°C [73°F] and boiling points below 38°C [100°F]. Reactivity Hazard: **0** (normally stable); 1 (material that can become unstable at elevated temperatures or which can react slightly with water); **2** (materials that are unstable but do not detonate or which can react violently with water); **3** (materials that can detonate when initiated or which can react explosively with water); **4** (materials that can detonate at normal temperatures or pressures).

NATIONAL FIRE PROTECTION ASSOCIATION: Health Hazard: **0** (material that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials); **1** (materials that on exposure under fire conditions could cause irritation or minor residual injury); **2** (materials that on intense or continued exposure under fire conditions could cause temporary incapacitation or possible residual injury); **3** (materials that can on short exposure could cause serious temporary or residual injury); **4** (materials that under very short exposure could cause death or major residual injury). Flammability Hazard and Reactivity Hazard: Refer to definitions for "Hazardous Materials Identification System".

FLAMMABILITY LIMITS IN AIR:
Much of the information related to fire and explosion is derived from the National Fire Protection Association (**NFPA**). Flash Point - Minimum temperature at which a liquid gives off sufficient vapors to form an ignitable mixture with air. Autoignition Temperature: The minimum temperature required to initiate combustion in air with no other source of ignition. LEL - the lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. UEL - the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

TOXICOLOGICAL INFORMATION:
Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are: **LD_{50}** - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; **LC_{50}** - Lethal Concentration (gases) which kills 50% of the exposed animals; **ppm** concentration expressed in parts of material per million parts of air or water; **mg/m^3** concentration expressed in weight of substance per volume of air; **mg/kg** quantity of material, by weight, administered to a test subject, based on their body weight in kg. Other measures of toxicity include **TDLo**, the lowest dose to cause a symptom and **TCLo** the lowest concentration to cause a symptom; **TDo**, **LDLo**, **LDo**, **TC**, **TCo**, **LCLo**, and **LCo**, the lowest dose (or concentration) to cause lethal or toxic effects. **BEI** - Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV. Ecological Information: **EC** is the effect concentration in water.

Data from several sources are used to evaluate the cancer-causing potential of the material. The sources and ratings are: **IARC** - the International Agency for Research on Cancer; 1 = Carcinogenic to humans, 2A, 2B = Probably carcinogenic to humans, 3 = Unclassifiable as to carcinogenicity in humans, and 4 = Probably not carcinogenic to humans. **NTP** - the National Toxicology Program; K =Known to be a human carcinogen, and R = Reasonably anticipated to be a human carcinogen. **RTECS** - the Registry of Toxic Effects of Chemical Substances. **OSHA -** Occupational Safety and Health Administration and **CAL/OSHA -** California's subunit of the Occupational Safety and Health Administration; Ca = Carcinogen defined with no further categorization. **ACGIH –** American Conference of Governmental Industrial Hygienists; A1 = Confirmed human carcinogen, A2 = Suspected human carcinogen, A3 = Confirmed animal carcinogen with unknown relevance to humans, A4 = Not classifiable as a human carcinogen, and A5 = Not suspected as a human carcinogen. **NIOSH** – U.S. National Institute for Occupational Safety and Health; Ca = Potential occupational carcinogen, with no further categorization. **EPA** – U.S. Environmental Protection; A = Human carcinogen, B = Probable human carcinogen, C = Possible human carcinogen, D = Not classifiable as to human carcinogenicity, E = Evidence of Non-carcinogenicity for humans, K = Known human carcinogen, L = Likely to produce cancer in humans, CBD = Cannot be determined, NL = Not likely to be carcinogenic in humans, and I = Data are inadequate for an assessment of human carcinogenic potential.

REGULATORY INFORMATION:
This section explains the impact of various laws and regulations on the material. **EPA** is the U.S. Environmental Protection Agency. **WHMIS** is the Canadian Workplace Hazardous Materials Information System. **DOT** and **TC** are the U.S. Department of Transportation and the Transport Canada, respectively. Superfund Amendments and Reauthorization Act **(SARA)**; the Canadian Domestic/Non-Domestic Substances List **(DSL/NDSL)**; the U.S. Toxic Substance Control Act **(TSCA)**; Marine Pollutant status according to the **DOT**; the Comprehensive Environmental Response, Compensation, and Liability Act **(CERCLA or Superfund)**; and various state regulations. This section also includes information on the precautionary warnings that appear on a material's industrial package label.