



MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI and Canadian WHMIS Standards. This Material 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 these products.

WARNING: PRODUCT COMPONENTS PRESENT HEALTH AND SAFETY HAZARDS. READ AND UNDERSTAND THIS MATERIAL SAFETY DATA SHEET (M.S.D.S.). ALSO, FOLLOW YOUR EMPLOYER'S SAFETY PRACTICES. This product may contain Chromium and/or Nickel which are listed by OSHA, NTP, or IARC as being a carcinogen or potential carcinogen. Use of this product may expose you or others to fumes and gases at levels exceeding those established by the American Conference of Governmental Industrial Hygienists (ACGIH) or the Occupational Safety and Health Administration (OSHA) The information contained herein relates only to the specific product. If the product is combined with other materials, all component properties must be considered. **BE SURE TO CONSULT THE LATEST VERSION OF THE MSDS. MATERIAL SAFETY DATA SHEETS ARE AVAILABLE FROM HARRIS PRODUCTS GROUP** salesinfo@jwharris.com 513-754-2000

www.harrisproductsgroup.com

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

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):	SUPER COLD GALV (AEROSOL)
CHEMICAL NAME/CLASS:	Acetone/Zinc-Based Aerosol
SYNONYMS:	Not Applicable
PRODUCT USE:	Metal-Working Operations
DOCUMENT NUMBER:	0100
SUPPLIER/MANUFACTURER'S NAME:	HARRIS PRODUCTS GROUP
ADDRESS:	4501 Quality Place, Mason, Ohio 45140
EMERGENCY PHONE:	CHEMTREC: 1-800-424-9300
BUSINESS PHONE:	513-754-2000 FAX 513-754-8778
DATE OF PREPARATION:	July 12, 2007

2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	% w/w	EXPOSURE LIMITS IN AIR					
			ACGIH-TLV		OSHA-PEL		NIOSH IDLH mg/m ³	OTHER mg/m ³
			TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³		
Acetone	67-64-1	20-30	500	750	1000 750 (vacated 1989 PEL)	1000 (vacated 1989 PEL)	2500	NIOSH REL: TWA = 250 DFG MAKs: TWA = 500 PEAK = 2•MAK, 5 min., momentary value Carcinogen: EPA-D, TLV-A4
Isobutyl Acetate	110-19-0	1-5	150	NE	150	NE	1300	NIOSH REL: TWA = 150 DFG MAKs: TWA = 100 PEAK = 2•MAK, 5 min., momentary value DFG MAK Pregnancy Risk Classification: C

NE = Not Established.

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.

2. COMPOSITION and INFORMATION ON INGREDIENTS (Continued)

CHEMICAL NAME	CAS #	% w/w	EXPOSURE LIMITS IN AIR					
			ACGIH-TLV		OSHA-PEL		NIOSH IDLH mg/m ³	OTHER mg/m ³
			TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³		
Diacetone Alcohol	123-42-2	1-5	50	NE	50	NE	1800 (based on 10% of LEL)	NIOSH REL: TWA = 50 DFG MAK: TWA = 50
Propane	74-98-6	Gas Mixture for Aerosol Propellant: 20-30	2500	NE	1000	NE	2100 (based on 10% of LEL)	NIOSH REL: TWA = 1000 DFG MAK: 1000 PEAK = 2•MAK 6- min., momentary value
Isobutane	75-28-5		NE	NE	800 (vacated 1989 PEL)	NE	NE	NIOSH REL: TWA = 800 DFG MAKs: TWA = 1000 PEAK = 2•MAK 6- min., momentary value
Zinc (exposure limits are for zinc oxide, fume & dust)	7440-66-6	Balance	5 (fume) 10 (dust)	10 (fume)	5 (fume) 5 (total dust) 15 (dust, respirable dust) 5 (dust, respirable dust, Vacated 1989 PEL)	10 (fume, Vacated 1989 PEL)	500	NIOSH RELS: TWA = 5 (fume & dusts) STEL = 10 (fume), 15 (ceiling, 15 minutes, dusts) DFG MAKs: TWA = 1.5 (Respirable fraction, fume) Carcinogen: EPA-D
Toluene	108-88-3	1-10	50 (skin)	NE	200 100 (vacated 1989 PEL)	300 (ceiling) 500 (10 min peak per 8 hr shift) 150 (vacated 1989 PEL)	500	NIOSH RELS: TWA = 100 STEL = 150 DFG MAKs: TWA = 50 (skin) PEAK = 5•MAK 30 min., average value DFG MAK Pregnancy Risk Classification: C Carcinogen: EPA-D, IARC-3, TLV-A4
Xylene	1330-20-7	1-10	100	150	100	150 (vacated 1989 PEL)	900	NIOSH RELS: TWA = 100 STEL = 150 DFG MAKs: TWA = 100 PEAK = 2•MAK 30 min, average value Carcinogen: EPA-D, IARC-3, TLV-A4

NE = Not Established.

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: This product is a gray, flammable liquid that is propelled as an aerosol under the pressure of a flammable gas mixture. This product has a distinct, fruity odor. Acetone, Toluene, and Xylene (components of this product) can act as a mild central nervous system depressant; inhalation of mists or aerosols of this product may cause headache, nausea, dizziness, drowsiness, and in cases of severe inhalation over-exposure, confusion, unconsciousness, and death. This material can cause skin and eye irritation. This product is flammable and vapors from the liquid may spread a long distance to an ignition source and flashback. This product is not reactive under normal circumstances. Emergency responders must wear the proper personal protective equipment and have fire-protection suitable for the situation to which they are responding.

3. HAZARD IDENTIFICATION (Continued)

SYMPTOMS OF OVER-EXPOSURE BY ROUTE OF EXPOSURE:

The most significant routes of over-exposure for this product are by contact with skin , eye contact, or inhalation of mists or sprays of this product.

INHALATION: If vapors, mists, or sprays of this product are inhaled, they can irritate the nose, throat, and respiratory system. Symptoms of inhalation over-exposure may include headache, nausea, dizziness, drowsiness, muscle weakness, vomiting, collapse, and coma. Chronic inhalation over-exposure may cause nose and throat irritation, dizziness, and loss of strength. This product is propelled by a gas mixture; if large quantities of this product are used in enclosed, confined, or otherwise poorly ventilated areas, an oxygen deficient environment can develop. Severe inhalation over-exposure may be fatal. The effects associated with various levels of oxygen are as follows:

- 12–16% Oxygen: Breathing and pulse rate increased, muscular coordination slightly disturbed.
- 10–14% Oxygen: Emotional upset, abnormal fatigue, disturbed respiration.
- 6–10% Oxygen: Nausea and vomiting, collapse or loss of consciousness.
- Below 6%: Convulsive movements, possible respiratory collapse, and death.

CONTACT WITH SKIN or EYES: Skin contact with this product may mildly irritate the skin. Repeated or prolonged over-exposure to this product may result in dermatitis (red, dry, itchy skin). Eye contact with this product may cause slight, temporary irritation.

SKIN ABSORPTION: The Toluene component of this product is slowly absorbed through the skin. Because Toluene is a minor component of this product, skin absorption is not anticipated to be a significant route of over-exposure.

INGESTION: Ingestion is not anticipated to be a likely route of occupational exposure for this product. If this product is swallowed, it can cause irritation and inflammation of the stomach, irritation of the throat and esophagus, and symptoms similar to those describes in "Inhalation". Aspiration (inhalation of material into the lungs during ingestion or vomiting) of this product may result in severe, life-threatening lung damage.



INJECTION: Though not anticipated to be a likely route of occupational exposure for this product, injection of this product (via punctures or lacerations by a contaminated object) may cause local reddening, tissue swelling, and discomfort in addition to the wound.

HEALTH EFFECTS OR RISKS FROM OVER-EXPOSURE: An Explanation in Lay Terms. Symptoms associated with over-exposure to this product are as follows:

ACUTE: Symptoms of inhalation over-exposure may include headache, nausea, dizziness, drowsiness, muscle weakness, vomiting, collapse, and coma. Severe inhalation over-exposure may be fatal. Skin and eye contact may be irritating. Ingestion over-exposure can cause irritation and inflammation of the stomach, irritation of the throat and esophagus, and symptoms similar to those describes in "Inhalation".

CHRONIC: Repeated inhalation over-exposure may cause nose and throat irritation, dizziness, and loss of strength. Repeated or prolonged skin over-exposure to this product may result in dermatitis (red, dry, itchy skin). Refer to Section 11 (Toxicology Information) for additional data.

TARGET ORGANS: ACUTE: Skin, eyes, respiratory system. CHRONIC: Skin.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH		(BLUE)	1
FLAMMABILITY		(RED)	4
REACTIVITY		(YELLOW)	0
PROTECTIVE EQUIPMENT			B
EYES	RESPIRATORY	HANDS	BODY
	See Section 8		See Section 8
For routine industrial applications			

See Section 16 for Definition of Ratings

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 adverse health effects occur. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to health professional with victim.

SKIN EXPOSURE: In the event of skin-over-exposure, rinse affected area with a soap and water solution. If skin contact results in irritation, the minimum flushing is for 15 minutes. Victim must seek medical attention if adverse health effects occur, or if skin contact has resulted in a thermal burn.

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

4. FIRST-AID MEASURES (Continued)

INHALATION: If vapors, mists, or sprays of this product are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers. Seek medical attention if adverse effect occurs.

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. If victim vomits naturally, position head lower than chest to prevent aspiration into the lungs. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Dermatitis, other skin disorders, respiratory conditions, and central nervous system disorders be aggravated by over-exposure to this product.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT (tag closed cup): -40°C (-40°F)

AUTOIGNITION TEMPERATURE: Not established.

FLAMMABLE LIMITS (in air by volume, %): Lower (LEL): 1.8%
Upper (UEL): 12.0%

FIRE EXTINGUISHING MATERIALS:

Water Spray: YES (for cooling)

Halon: YES

Dry Chemical: YES

Carbon Dioxide: YES

Foam: YES

Other: Any "B" Class.

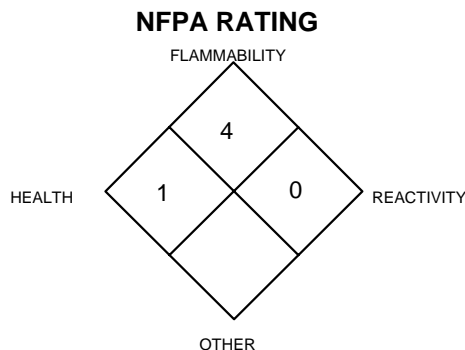
UNUSUAL FIRE AND EXPLOSION HAZARDS: This product is a combustible liquid, which is propelled as an aerosol by a flammable gas.

The vapors of this product are heavier than air and may travel a considerable distance to a source of ignition and flashback to a leak or open container. This product may float on water and travel to distant locations and/or spread fire. During a fire, irritating and toxic gases (i.e., carbon monoxide, carbon dioxide, and zinc oxide) may be generated. This product's vapors can accumulate in confined spaces, resulting in a toxicity and flammability hazard. Containers of this product may explode in heat of fire.

Explosion Sensitivity to Mechanical Impact: Not sensitive.

Explosion Sensitivity to Static Discharge: Mixtures of this product and the components of the gas mixture may be ignited by static electricity.

SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Chemical resistant clothing (e.g., chemical splash suit) may be necessary. Stop leak before attempting to put out the fire. If the leak cannot be stopped and if there is no risk to the surrounding area, let the fire burn itself out. If the flames are extinguished without stopping the leak, vapors could form explosive mixtures with air and re-ignite. Evacuate area and fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Isolate materials not yet involved in fire and protect personnel. Move containers from fire area if it can be done without risk to personnel. Use water spray to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray in large quantities to disperse the vapors and to protect personnel attempting to stop the leak. Water spray can be used to dilute spills to nonflammable mixtures and flush spills away from ignition sources. Solid streams of water may be ineffective and spread material. If possible, prevent run-off water from entering storm drains, bodies of water, or other environmentally sensitive areas.



**See Section 16 for
Definition of Ratings**

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area and protect people. Eliminate all sources of ignition before clean-up begins. Use non-sparking tools. The atmosphere must have levels of components lower than those listed in Section 2, (Composition and Information on Ingredients) and at least 19.5 percent oxygen before personnel can be allowed into the area without Self-Contained Breathing Apparatus (SCBA). Colorimetric tubes are available for detection of Acetone. For small spills, absorb spilled liquid with polypads or other suitable absorbent materials, wearing gloves, goggles and apron. In the event of a non-incident release, minimum Personal Protective Equipment should be **Level B: triple-gloves (rubber gloves and nitrile gloves, over latex gloves), chemically resistant suit and boots, hard-hat, and Self-Contained Breathing Apparatus.** Monitor area for combustible vapor levels. The level of vapors must be below 10% of the LEL (See Section 5, Fire-Fighting Measures) before personnel are allowed into the spill area. Absorb spilled liquid with activated carbon, polypads, or other suitable absorbent materials. Decontaminate the area thoroughly. Prevent material from entering sewer or confined spaces. Place all spilled residues in a double plastic bag and seal. Dispose of in accordance with applicable U.S. Federal, State, or local procedures, or appropriate Canadian standards (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 handling this product. Do not eat or drink while handling this material. Use ventilation and other engineering controls to minimize potential exposure to the aerosol, sprays, and vapors of this product. Remove contaminated clothing immediately.

STORAGE AND HANDLING PRACTICES: Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Containers should be separated from oxidizing materials by a minimum distance of 20 ft. or by a barrier of non-combustible material at least 5 ft. high having a fire-resistance rating of at least 0.5 hours. Storage areas should be made of fire resistant materials. Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Have appropriate extinguishing equipment in the storage area (i.e., sprinkler system, portable fire extinguishers). Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged. Refer to NFPA 30, *Flammable and Combustible Liquids Code*, for additional information on storage. Do not incinerate empty or partially filled containers.

Keep container tightly closed when not in use. Inspect all incoming containers before storage to ensure they are properly labeled and not damaged.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Not applicable.

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). Use a non-sparking, grounded ventilation system separate from other exhaust ventilation systems. Exhaust directly to the outside, taking necessary precautions for environmental protection. Prudent practice is to ensure eyewash/safety shower stations are available near areas where this product is used.

RESPIRATORY PROTECTION: No respiratory protection is normally required when using this product. Maintain airborne contaminant concentrations below guidelines listed in Section 2 (Composition and Information on Ingredients), if applicable. If respiratory protection is needed, U.S. Federal OSHA Standard (29 CFR 1910.134), applicable U.S. State regulations, or the Canadian CSA Standard Z94.4-93 and applicable standards of Canadian Provinces. Respiratory Protection is recommended to be worn during welding operations. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998). The following NIOSH respiratory selection guidelines are available for the main component of this product, Acetone:

CONCENTRATION: RESPIRATORY EQUIPMENT:

Up to 2500 ppm: Chemical cartridge respirator with organic vapor cartridge(s), powered air-purifying respirator with organic vapor cartridge(s), gas mask with organic vapor canister, Supplied-Air Respirator (SAR), or full-facepiece Self-Contained Breathing Apparatus (SCBA).

Emergency or Planned Entry Into Unknown Concentrations or IDLH Conditions: Positive pressure, full-facepiece SCBA or positive pressure, full-facepiece SAR with an auxiliary positive pressure SCBA.

Escape: Gas mask with organic vapor canister or escape-type SCBA.

EYE PROTECTION: Safety glasses or goggles. If necessary, refer to U.S. OSHA 29 CFR 1910.133, or appropriate Canadian Standards. If necessary, refer to U.S. OSHA 29 CFR 1910.138, or appropriate Standards of Canada.

HAND PROTECTION: Wear Barricade™ or Teflon™ gloves (resistance to breakthrough greater than 8 hours) for routine industrial use. Natural rubber, neoprene, nitrile rubber, polyethylene, and polyvinyl alcohol gloves are not recommended. If necessary, refer to U.S. OSHA 29 CFR 1910.138, or appropriate Standards of Canada.

BODY PROTECTION: None needed for normal circumstances of use. Use body protection appropriate for task (i.e., apron, coveralls, chemically-resistant boots). If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

9. PHYSICAL and CHEMICAL PROPERTIES

RELATIVE VAPOR DENSITY (air = 1): 4.0

SPECIFIC GRAVITY (water = 1): 0.9

SOLUBILITY IN WATER: Slightly soluble.

VAPOR PRESSURE, mm Hg @ 24°C: Not established.

ODOR THRESHOLD: Not established.

COEFFICIENT OF OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not established.**APPEARANCE AND COLOR:** This product is a gray liquid with a distinct, fruity odor.

9. PHYSICAL and CHEMICAL PROPERTIES (Continued)

HOW TO DETECT THIS SUBSTANCE (warning properties): The color and odor may act as distinguishing characteristics of this product.

10. STABILITY and REACTIVITY

STABILITY: Stable.

DECOMPOSITION PRODUCTS: Carbon and zinc oxides, a variety of other aromatic and organic molecules.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong oxidizers, acids, alkali hydroxides, chlorinated solvent/alkali mixtures, halogenated hydrocarbons, ammonium nitrate, sulfur, sulfur dichloride, potassium *tert*-butoxide.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Extreme temperatures, incompatible materials.

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

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: Human toxicological data are available for the components of this product listed below. Other data for animals are available but are not presented in this Material Safety Data Sheet.

ACETONE:

Eye Irritancy (human) = 500 ppm

TDLo (oral, man) = 2857 mg/kg

TCLo (inhalation, man) = 12,000 ppm/ 4 hours;
central nervous system effects

TDLo (inhalation, man) = 440 µg/m³/ 6 months

TDLo (inhalation, man) = 10 mg/m³/ 6 hours

TCLo (inhalation, human) = 500 ppm; eye
effects

TCLo (inhalation, man) = 12,000 ppm/ 4 hours;
gastrointestinal tract effects

DIACETONE ALCOHOL:

Eye Irritancy (human) = 100 ppm/ 15 minutes

TCLo (inhalation, human) = 100 ppm; eye,
central nervous system, gastrointestinal
tract effects

TCLo (inhalation, human) = 400 ppm;
pulmonary system effects

TOLUENE:

Eye Irritancy (human) = 300 ppm; injury

LDLo (oral, human) = 50 mg/kg

LDLo (inhalation, human) = 200 ppm; brain,
central nervous system, blood effects

TCLo (inhalation, man) = 100 ppm; central
nervous system effects

XYLENE:

Eye Irritancy (human) = 200 ppm

LDLo (oral, human) = 50 mg/kg

LCLo (inhalation, man) = 10,000 ppm/ 6 hours

TCLo (inhalation, human) = 200 ppm; nose, eye,
pulmonary system effects

ZINC:

Skin Irritancy (human) = 300 mg/ 3 days/
intermittent; mild

TCLo (inhalation, human) = 124 mg/m³/ 50
minutes; pulmonary system effects, skin

SUSPECTED CANCER AGENT: The components of this product are listed as follows:

ACETONE: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen; agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of lack of data.), EPA-D (Not Classifiable as to Human Carcinogenicity (inadequate human and animal evidence of carcinogenicity or no data available))

TOLUENE: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen; agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of lack of data.), EPA-D (Not Classifiable as to Human Carcinogenicity (inadequate human and animal evidence of carcinogenicity or no data available), IARC-3 (Possibly Carcinogenic to Humans))

XYLENE: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen; agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of lack of data.), EPA-D (Not Classifiable as to Human Carcinogenicity (inadequate human and animal evidence of carcinogenicity or no data available), IARC-3 (Possibly Carcinogenic to Humans))

ZINC: EPA-D (Not Classifiable as to Human Carcinogenicity (inadequate human and animal evidence of carcinogenicity or no data available))

The remaining components of this product are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, and CAL/OSHA, and therefore are not considered to be, nor suspected to be, cancer-causing agents by these agencies.

IRRITANCY OF PRODUCT: This product can be irritating to contaminated skin or eyes.

SENSITIZATION TO THE PRODUCT: Some animal studies indicate that exposure to the Propane component of this product can cause weak cardiac sensitization. Severe or chronic over-exposure to the Xylene component of this product can cause cardiac sensitization to stimulants (e.g., epinephrine and ephedrine).

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

Mutagenicity: This product is not reported to produce mutagenic effects in humans. Animal mutation data are available for the Toluene and Xylene components of this product; these data were obtained during clinical studies on specific animal tissues exposed to high doses of these compounds.

Embryotoxicity: This product is not reported to produce embryotoxic effects in human

Teratogenicity: These products are not reported to cause teratogenic effects in humans. Clinical studies on test animals exposed to relatively high doses of the Toluene component of this product indicate teratogenic effects.

Reproductive Toxicity: This product is not reported to cause adverse reproductive effects in humans. Clinical studies on test animals exposed to relatively high doses of the Acetone, Toluene, and Xylene components of this product indicate adverse reproductive effects.

A mutagen is a chemical, which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical, which 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, which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance, which interferes in any way with the reproductive process.

11. TOXICOLOGICAL INFORMATION (Continued)

BIOLOGICAL EXPOSURE INDICES: Currently, the following Biological Exposure Indices (BEIs) have been determined for the components of this product.

CHEMICAL DETERMINANT	SAMPLING TIME	BEI
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ACETONE • Acetone in Urine	• End of shift	• 50 mg/L
TOLUENE • o-Cresol in urine • Hippuric Acid in Urine • Toluene in Blood	• End of shift • End of shift • Prior to Last Shift of Workweek	• 0.5 mg/L • 1.6 g/g creatinine • 0.05 mg/L
XYLENES • Methylhippuric Acids in Urine	• End of shift	• 1.5 g/g creatinine

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY: The components of this product will decompose and dissipate under normal environmental conditions. Additional environmental data are available as follows:

ACETONE: Log K_{ow} = -0.24. Water Solubility = Miscible. Acetone is quite readily degraded in the environment. BOD = 122%; 5 days. The potential for bioconcentration in fish is negligible.

DIACETONE ALCOHOL: Log K_{ow} (estimated) = -0.098. Water Solubility = 1.0×10^6 mg/L. Bioconcentration Factor (estimated) = 0.50. Diacetone Alcohol is not expected to significantly bioconcentrate in aquatic organisms.

ISOBUTYL ACETATE: Log K_{ow} = 1.60. Water Solubility = 0.67g/ 100 g (20°C), 6300 mg/L (25°C). Bioconcentration Factor (estimated) = 9.7 and 4. Isobutyl Acetate is not expected to bioconcentrate.

PROPANE: Log K_{ow} = 2.36. Water Solubility = 62.4 ppm (25°C). Log BCF (calculated) = 1.56 & 1.78. The bioconcentration in aquatic organisms is not expected to be important. Propane is readily degraded by soil bacteria.

TOLUENE: K_{oc} = 2.73. Water Solubility = 534 mg/L. Biological Half-Life = 0.083 days. Bioconcentration Factors = 13.2 (*Anguilla japonica*, eels); 1.67 (*Tapes semidecussata*, Manila clam); 4.2 (*Mytilus edulis*, mussel); 380 (*Chorella fusca*, algae); 90 (golden ide fish). Toluene is rapidly volatilized from water and undergoes moderate biodegradation. The half-life in water is on the order of days to weeks.

XYLENES: Log K_{ow} = 3.5–68. Water Solubility = 146–175 mg/L. Bioconcentration Factors = 3.1–3.2 (estimated); 2.14–2.20 (fish); 1.3 (eels). Xylenes will photochemically degrade; however, xylenes tend to persist in the environment and seem to be very slowly biodegraded. Bioconcentration is not expected to be significant.

ZINC: Water solubility = Insoluble. Biological Half-Life for normal humans 162–500 days. Bioconcentration: The Bioconcentration Factor in edible portions of *Crassostrea virginica*, adult oyster is 16,700 (total zinc).

EFFECT OF MATERIAL ON PLANTS or ANIMALS: This product can be harmful to plant and animal life.

EFFECT OF CHEMICAL ON AQUATIC LIFE: This product may float on water and may prevent oxygen from entering the water; therefore, large releases of this product may be harmful or fatal to exposed aquatic life. Additional aquatic toxicity data are available as follows:

ACETONE:

LC₅₀ (Japanese quail) = 40,000 ppm
 LC₅₀ (Ring-necked pheasant) = 40,000 ppm
 LC₅₀ (*Salmo gairdneri*, rainbow trout) = 5,540 mg/L/ 86 hours/ 12°C
 LD₁₀₀ (*Asellus aquaticus*) = 3 mL/L/ within 3 days
 LD₁₀₀ (*Gammarus fossarum*) = 10 mL/L/ within 48 hours
 LC₅₀ (*Pimephales promelas*) = 8,120 mg/L/ 96 hours
 TLm (*Daphnia magna*) = 10 mg/L/ 24 and 48 hours
 TLm (brine shrimp) = 2100 mg/L/ 24 and 48 hours
 TLm (mosquito fish) = 13000 mg/L/ 24, 48, and 96 hours
 LC₅₀ (*Lepomis macrochirus*, bluegill sunfish) = 8300 mg/L/ 96 hours
 LD₅₀ (goldfish) = 5000 mg/L/ 24 hours
 LC₅₀ (*Poecilia reticulata*, guppy) = 7,032 ppm/ 14 days
 LC₅₀ (Mexican axolotl) = 20.0 mg/L/ 48 hours/ 3–4 weeks after hatching
 LC₅₀ (clawed toad) = 24.0 mg/L/ 48 hours/ 3–4 weeks after hatching
DIACETONE ALCOHOL:
 LC₅₀ (*Lepomis macrochirus*) = 420 ppm/ 96 hours/ fresh water/ 23°C

DIACETONE ALCOHOL (continued):

LC₅₀ (*Menidia beryllina*) = 420 ppm/ 96 hours/ salt water/ 23°C
 LD₅₀ (goldfish) = 5000 mg/L/ 24 hours
ISOBUTYL ACETATE:
 TLm (brine shrimp) = 1200 ppm/ 24 hours
TOLUENE:
 LC₅₀ (bluegill) = 17 mg/L/ 24 hours; 13 mg/L/ 96 hours; 21–23°C
 LC₅₀ (*Palaemonetes pugio*, grass shrimp) = 9.5 ppm/ 96 hours
 LC₅₀ (*Cancer magister*, crab larvae) = 28 ppm/ 96 hours
 LC₅₀ (*Crangon francisorium*, shrimp) = 4.3 ppm/ 96 hours
 TLm (*Pimephales promelas*, fathead minnow) = 56–34 mg/L/ 24–96 hours
 TLm (*Lebistes reticulatus*, guppy) = 63–59 mg/L/ 24–96 hours
 LC₅₀ (channel catfish) = 240 mg/L/ 96 hours
 LC₅₀ (*Pimephales promelas*, fathead minnow) = 34.27 mg/L/ 96 hours
 LC₅₀ (*Carassius auratus*, goldfish) = 57.68 mg/L/ 96 hours
 LC₅₀ (*Lebistes reticulatus*, guppy) = 59.30 mg/L/ 96 hours
 LC₅₀ (*Daphnia magna*, water flea) = 313 mg/L/ 48 hours

TOLUENE (continued):

LC₅₀ (*Nitocra spinipes*, copepod) = 24.2–74.2 mg/L/ 24 hours
 LC₅₀ (*Artemia salina*, brine shrimp) = 33 mg/L/ 24 hours
 LC₅₀ (*Morone saxatilis*, striped bass) = 7.3 mg/L/ 96 hours
 LC₅₀ (*Cyprinodon variegatus*, sheephead minnow) = 277–485 mg/L/ 96 hours
 LC₅₀ (*Aedes aegypti*) = 22 mg/L
 LC₅₀ (*Calandra granaria*, grain weevil) = 210 mg/L
 LC₅₀ (*Pimephales promelas*, fathead minnow) = 55–72 mg/L/ embryos, 25–36 mg/L/ larvae, 26–31 mg/L/ 30 days old; 96 hours
 EC₅₀ (*Pimephales promelas*, fathead minnow) = 14.6 mg/L/ 96 hours/ 24.7°C; loss of equilibrium
 LC₅₀ (*Pimephales promelas*, fathead minnow) = 36.2 mg/L, 96 hours/ 24.7°C

ZINC:

Zinc poisoning causes inflamed gills in fish. Laboratory studies of Atlantic salmon, rainbow trout, carp, and goldfish have shown avoidance reactions by these fish to zinc in water.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

EPA WASTE NUMBER: D001 (Characteristic/Ignitability), applicable to wastes consisting only of this product.

14. TRANSPORTATION INFORMATION

THIS PRODUCT IS HAZARDOUS (Per 49 CFR 172.101) BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Aerosols
HAZARD CLASS NUMBER and DESCRIPTION: 2.1 (Flammable Gas)
UN IDENTIFICATION NUMBER: UN 1950
PACKING GROUP: Not Applicable
DOT LABEL(S) REQUIRED: Flammable Gas
NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2000): 126
MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).
NOTE: Limited quantity exceptions may be applicable for this product may be applicable if requirements of §173.306 (a)(1), for Consumer Commodity, as defined in §171.8 may be renamed "consumer commodity" and re-classed as an ORM-D material. All requirements under these sections must be met.

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This product is considered as dangerous goods, per regulations of Transport Canada. Use the above information for the preparation of Canadian shipments.

15. REGULATORY INFORMATION

ADDITIONAL U.S. REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are is subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act, as follows:

CHEMICAL NAME	SARA 302 (40 CFR 355, Appendix A)	SARA 304 (40 CFR Table 302.4)	SARA 313 (40 CFR 372.65)
Acetone	No	Yes	Yes
Isobutane	No	Yes	No
Propane	No	Yes	No
Toluene	No	Yes	Yes
Xylenes	No	Yes	Yes
Zinc	No	Yes	No

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Acetone = 5000 lbs; Isobutane = 10,000 lbs; Propane = 10,000 lbs; Toluene = 1000 lbs; Xylenes = 1000 lbs; Zinc = 1000 lbs.

OTHER FEDERAL REGULATIONS: Depending on the use of the product, the requirements of the OSHA Process Safety Management of Highly Hazardous Chemicals (29 CFR 1910.119) may be applicable. Isobutane and Propane are subject to the reporting requirements of Section 112 (r) of the Clean Air Act. The Threshold Quantity is 10,000 lbs. for each gas.

U.S. STATE REGULATORY INFORMATION: The components of this product are covered under specific State regulations, as denoted below:

Alaska - Designated Toxic and Hazardous Substances: Acetone, Diacetone Alcohol, Isobutyl Acetate, Propane, Toluene, Xylenes.

California - Permissible Exposure Limits for Chemical Contaminants: Acetone, Diacetone Alcohol, Isobutyl Acetate, Propane, Toluene, Xylenes.

Florida - Substance List: Acetone, Diacetone Alcohol, Isobutyl Acetate, Toluene, Xylenes, Zinc.

Illinois - Toxic Substance List: Acetone, Diacetone Alcohol, Isobutyl Acetate, Propane, Toluene, Xylenes, Zinc.

Kansas - Section 302/313 List: Acetone, Propane, Toluene, Xylenes, Zinc.

Massachusetts - Substance List: Acetone, Diacetone Alcohol, Isobutane, Isobutyl Acetate, Propane, Toluene, Xylenes, Zinc.

Michigan Critical Register List: Toluene, Xylenes, Zinc.

Minnesota - List of Hazardous Substances: Acetone, Diacetone Alcohol, Isobutyl Acetate, Propane, Toluene, Xylenes.

(continued on following page)

15. REGULATORY INFORMATION (Continued)

ADDITIONAL U.S. REGULATIONS (continued):

U.S. STATE REGULATORY INFORMATION (continued):

Missouri - Employer Information/Toxic Substance List: Acetone, Diacetone Alcohol, Isobutyl Acetate, Propane, Toluene, Xylenes.

New Jersey - Right to Know Hazardous Substance List: Acetone, Diacetone Alcohol, Isobutane, Isobutyl Acetate, Propane, Toluene, Xylenes, Zinc.

North Dakota - List of Hazardous Chemicals, Reportable Quantities: Acetone, Isobutyl Acetate, Toluene, Xylenes, Zinc.

Pennsylvania - Hazardous Substance List: Acetone, Diacetone Alcohol, Isobutane, Isobutyl Acetate, Propane, Toluene, Xylenes, Zinc.

Rhode Island - Hazardous Substance List: Acetone, Diacetone Alcohol, Isobutyl Acetate, Propane, Toluene, Xylenes, Zinc.

Texas - Hazardous Substance List: Acetone, Diacetone Alcohol, Isobutyl Acetate, Propane, Toluene, Xylenes.

West Virginia - Hazardous Substance List: Acetone, Diacetone Alcohol, Isobutyl Acetate, Propane, Toluene, Xylenes.

Wisconsin - Toxic and Hazardous Substances: Acetone, Diacetone Alcohol, Isobutyl Acetate, Propane, Toluene, Xylenes.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): The Toluene component of this product is on the California Proposition 65 Lists. **WARNING: This product may contain chemicals, and when used may produce fumes or gases containing chemicals, known to the State of California to cause cancer, and/or birth defects (or other reproductive harm.)**

ANSI LABELING (Z129.1) [Precautionary Statements]: DANGER-CONTENTS UNDER PRESSURE! KEEP OUT OF REACH OF CHILDREN. EXTREMELY FLAMMABLE AEROSOL SPRAY. CAN CAUSE CENTRAL NERVOUS SYSTEM EFFECTS. MAY CAUSE OXYGEN-DEFICIENT ENVIRONMENT. CAN CAUSE DEATH IF TOO MUCH IS BREATHED. ASPIRATION HAZARD IF SWALLOWED-CAN ENTER LUNGS AND CAUSE DAMAGE. PROLONGED OR REPEATED SKIN CONTACT MAY DRY SKIN AND CAUSE IRRITATION. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 120°F. Keep away from sparks and flame. Keep container closed. Use only with adequate ventilation. Avoid contact with skin and clothing. Avoid exposure to vapor. Wash thoroughly after handling. **FIRST-AID:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, do not induce vomiting. Get medical attention. **IN CASE OF FIRE:** Use water fog, foam, dry chemical, or CO₂. **IN CASE OF SPILL:** Absorb released liquid with inert materials (e.g., activated carbon, dry sand). Flush residual spill with water. Consult Material Safety Data Sheet for additional information.

WARNING:

PROTECT yourself and others. Read and understand this information.

FUMES AND GASES can be hazardous to your health.

ARC RAYS can injure your eyes and burn skin.

ELECTRIC SHOCK can kill.

HEAT RAYS (INFRARED RADIATION) from flame or hot metal can injure eyes.

- Before use, read and understand the manufacturer's instructions. Material Safety Data Sheets (MSDSs), and your employer's safety policies.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases from your breathing zone and the general area.
- FOR MAXIMUM SAFETY, BE CERTIFIED FOR AND WEAR A RESPIRATOR AT ALL TIMES WHEN WELDING OR BRAZING
- Wear correct eye, ear, and body protection.
- Do not touch live electrical parts.

See American National Standard Z49.1 *Safety in Welding, Cutting, and Allied Processes*, published by the American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126. OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Superintendent office, P.O. Box 371954, Pittsburgh, PA 15250-7954.

ADDITIONAL CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are on the DSL Inventory.

OTHER CANADIAN REGULATIONS: Not applicable.

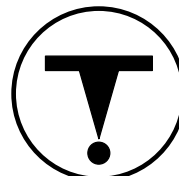
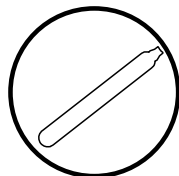
CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

CANADIAN WHMIS SYMBOLS:

Class A: Compressed Gas

Class B2: Flammable and Combustible Material/ Flammable Aerosol.

Class D2B: Poisonous and Infectious Materials/ Other Toxic Effects.



16. OTHER INFORMATION

DATE OF PRINTING:

July 12, 2007

This Material 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. The information contained herein relates only to the specific product. If the product is combined with other materials, all component properties must be considered. To the best of the Harris Products Group knowledge, the information and recommendations contained in this publication are reliable and accurate as the date of issue. However, accuracy, suitability, or completeness are not guaranteed, and no warranty, guarantee, or representation, expressed or implied, is made by Harris Products Group as to the absolute correctness or sufficiency of any representation contained in this and other publications; Harris Products Group assumes no responsibility in connection therewith; nor can it be assumed that all acceptable safety measures may not be required under particular or exceptional conditions or circumstances. Data may be changed from time to time. Be sure to consult the latest edition.

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 which uniquely identifies each constituent. It is used as a unique identifier for the chemical.

EXPOSURE LIMITS IN AIR:

ACGIH - American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits. **IARC** - International Agency for Research on Cancer **TLV** - Threshold Limit Value - an airborne concentration of a substance which 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 which 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. Occupational Safety and Health Administration (**OSHA**). NIOSH issues exposure guidelines called Recommended Exposure Levels (**RELs**). When no exposure guidelines are established, an entry of **NE** is made for reference. **NTP** - National Toxicology Program

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 result in 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 causes 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:

Human and Animal Toxicology: 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: **LD₅₀** - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; **LC₅₀** - 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/m³** 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**, and **LDo**, or **TC**, **TCo**, **LCLo**, and **LCo**, the lowest dose (or concentration) to cause lethal or toxic effects. **Cancer Information:** The sources are: **IARC** - the International Agency for Research on Cancer; **NTP** - the National Toxicology Program, **RTECS** - the Registry of Toxic Effects of Chemical Substances, **OSHA** and **CAL/OSHA**. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. **Other Information:** **BEI** - ACGIH 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. **BCF** = Bioconcentration Factor, which is used to determine if a substance will concentrate in lifeforms which consume contaminated plant or animal matter. Coefficient of Oil/Water Distribution is represented by **log K_{ow}** or **log K_{oc}** and is used to assess a substance's behavior in the environment.

REGULATORY INFORMATION:

This section explains the impact of various laws and regulations on the material. **U.S.:** **EPA** is the U.S. Environmental Protection Agency. **DOT** is the U.S. Department of Transportation. **SARA** is the Superfund Amendments and Reauthorization Act. **TSCA** is the U.S. Toxic Substance Control Act. **CERCLA (or Superfund)** refers to the Comprehensive Environmental Response, Compensation, and Liability Act. Labeling is per the American National Standards Institute (**ANSI Z129.1**). **CANADA:** **CEPA** is the Canadian Environmental Protection Act. **WHMIS** is the Canadian Workplace Hazardous Materials Information System. **TC** is Transport Canada. **DSL/NDL** are the Canadian Domestic/Non-Domestic Substances Lists. **The CPR is the Canadian Product Regulations.** This section also includes information on the precautionary warnings which appear on the materials package label.