

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Product name: LIQUID WRENCH SUPER PENETRANT (AEROSOL)

Product use: Penetrating Oil

Supplier name and address:

Radiator Specialty Company of Canada

1711 Aimco Blvd.

Mississauga, Ontario, L4W 1H7

Telephone #: 905-625-9117 (Monday - Friday (9 a.m.-5 p.m.))

Emergency Tel. #: CANUTEC (613) 996-6666 (24 Hr.)

Part Number: L106C, L112C

Chemical family: Mixture of Hydrocarbons.

Manufacturer name and address:

Radiator Specialty Co.

1900 Wilkinson Blvd.

Charlotte, N.C., 28234-6080

Telephone #: 704-377-6555

WHMIS CLASS: A, B5, D2B (Packaged and sold as a Consumer Product)

SECTION II - INGREDIENTS

Ingredients	CAS#	wt. %	LC ₅₀ / 4 Hrs (Rat, ihl.)	LD ₅₀ mg/kg	
				(Rat, oral)	(Rabbit, dermal)
Aliphatic petroleum distillate	8008-20-6	30 - 60	>5000 mg/m ³	>5000	>2000
Naphthenic petroleum mixture	*64742-53-6 / 64742-52-5	30 - 60	N/Av	>5000	>2000
Carbon dioxide (propellant)	124-38-9	1 - 5	N/Av	N/Av	N/Av

*Note: Composition of this ingredient may vary between the two indicated CAS #'s, or may be a mixture of both.

SECTION III - PHYSICAL DATA

Physical state, odour and appearance: Dark liquid, petroleum odour.

Coefficient of water/oil distribution: N/Av

Vapour pressure (mm Hg): N/Av

Boiling point: >149°C (concentrate)

Vapour density (Air = 1): N/Av

Volatile, %: <50

Odour threshold: N/Av

Specific gravity: 0.85

pH: N/Av

Freezing point: N/Av

Evaporation rate (BuAe = 1): N/Av

Solubility in water: Insoluble

SECTION IV - FIRE AND EXPLOSION DATA

Conditions of flammability: Under WHMIS rules, this product is considered to be a flammable aerosol.

Flash point (Method): 55.6°C (concentrate) (TCC)

Flame projection length: 15 - 100 cm

Upper flammable limit %: N/Av

Means of extinction: Dry chemical, foam, carbon dioxide, water fog.

Sensitivity to mechanical impact/static discharge: N/Av

Special fire fighting procedures: Firefighters should wear proper full protective equipment and self-contained breathing apparatus. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment and containers exposed to heat and flame. Shield personnel to protect from venting, rupturing or bursting cans.

Unusual fire and explosion hazards: Closed containers are contained under pressure and may explode if exposed to excess heat.

Hazardous combustion products: Oxides of carbon, oxides of nitrogen, oxides of sulfur

Auto-ignition temperature: N/Av

Flashback observed: None

Lower flammable limit %: N/Av

SECTION V - REACTIVITY DATA

Stability: Stable under the recommended storage and handling conditions prescribed. Hazardous polymerization will not occur.

Incompatible materials: Oxidizing agents.

Conditions of reactivity: Stable under ambient pressure and temperature. Avoid heat, sparks, flame and direct sunlight.

Hazardous decomposition products: None known. Refer to Section IV for 'Hazardous combustion products'.

SECTION VI - TOXICOLOGICAL PROPERTIES

Routes of exposure and acute effects

Exposure limit: ACGIH-TLV: Aliphatic petroleum distillate – 100 ppm (As Stoddard solvent); Naphthenic petroleum oil mixture – 5 mg/m³ (As Oil mist, mineral); Carbon dioxide – 5000 ppm.

OSHA-PEL: Aliphatic petroleum distillate – 500 ppm (As Stoddard solvent); Naphthenic petroleum oil mixture – 5 mg/m³ (As Oil mist, mineral); Carbon dioxide – 5000 ppm.

Inhalation: Inhalation may cause nose, throat and respiratory tract irritation. Symptoms may include dizziness, nausea, headache and other central nervous system effects. In very high concentrations, may act as an asphyxiant.

SECTION VI - TOXICOLOGICAL PROPERTIES CONTINUED

Skin: May cause moderate to severe irritation. Symptoms of frostbite may be experienced including numbness, prickling and itching.

Eyes: May cause moderate eye irritation. Direct contact could cause freezing of the eye.

Ingestion: Ingestion of an aerosol mist is unlikely. However, if ingested could be harmful. May cause irritation to mouth, throat and stomach. Symptoms may include nausea, vomiting and diarrhea. Product may present an aspiration hazard if ingested in large amounts.

Chronic effects: Prolonged or repeated contact may cause drying and cracking of the skin (dermatitis)

Carcinogenicity: None of the ingredients are listed by IARC or ACGIH as carcinogens

Reproductive effects, Teratogenicity, Mutagenicity: None known.

Sensitization to material: None known.

Synergistic materials: N/Av.

Conditions aggravated by exposure: Pre-existing skin, eye and respiratory disorders.

SECTION VII - FIRST AID

Inhalation: Immediately remove victim to fresh air. Obtain medical attention.

Skin: Immediately wash skin with soap and plenty of water, while removing contaminated clothing. Obtain medical attention.

Eyes: Immediately flush eyes thoroughly with water for at least fifteen minutes. Obtain medical attention.

Ingestion: Do not induce vomiting. Obtain medical attention immediately. Never give anything by mouth to an unconscious person.

SECTION VIII - PREVENTIVE MEASURES

Spill, leak or release: Wear appropriate protective equipment. Eliminate all sources of heat, sparks and flame. Ventilate area of release. Stop leak if you can do so without risk. Contain any spilled liquid, then place into a container for later disposal (see below). Do not flush to sewer or allow to enter confined spaces. Notify the appropriate authorities as required.

Waste disposal: Handle according to recommendations listed below. Dispose in accordance with all applicable government regulations.

PROTECTIVE EQUIPMENT

Respiratory protection: For prolonged exposure or if the TLV is exceeded, wear NIOSH-approved respirators.

Ventilation: Use with adequate ventilation. Use general ventilation for prolonged exposures or if the TLV is not known.

Protective gloves: Gloves impervious to the material are recommended. Advice should be sought from glove suppliers.

Eye protection: Recommended. Safety goggles or full face shield, to prevent liquid splashes or mists from entering the eyes.

Other protective equipment: Not needed for consumer use. Chemically resistant apron is recommended for bulk handling.

*** STORAGE & HANDLING ***

Storage and handling conditions: Handling: Wear protective equipment during handling. Use in a well ventilated area. Avoid skin or eye contact. Avoid inhalation. Do not use near sources of heat, flame, sparks, or ignition sources. Do not puncture or incinerate containers. Avoid generating vapours or mists. Keep container tightly closed when not in use. Keep away from children.

Storage: Store in a cool, dry, well-ventilated area away from incompatibles, heat, flame and sunlight. No smoking in the area.

Special Shipping Information: TDG - CLASS 2,1 UN1950 LIMITED QUANTITY AEROSOL

Additional notes or references:

Abbreviation: N/Av: not available

TLV: Threshold Limit Values

CAS: Chemical Abstract Service

NIOSH: National Institute of Occupational Safety and Health

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

Reference: 1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2002.

2. International Agency for Research on Cancer Monographs, Supplement 7, 1988.

3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2002 (Chempendium and RTECs).

4. Material Safety Data Sheet from manufacturer.

SECTION IX - PREPARATION INFORMATION

Prepared by: Radiator Specialty Company of Canada

Telephone No. 905-625-9117

Preparation date: March 12, 2003