

160-054
MATERIAL SAFETY DATA SHEET**SECTION 1: IDENTIFICATION****Product identifier** : TRANS-MEDIC**Product Use** : Automatic transmission additive.**Chemical Family** : Mixture.**Manufacturer part no.** : M3612C; M3612/6C**Supplier's name and address:****Radiator Specialty Co., of Canada**1711 Aimco Blvd.
Mississauga, ON, Canada
L4W 1H7**Manufacturer's name and address:**

Refer to Supplier

Information Telephone # : (905) 625-9117 (Monday - Friday, 8 AM - 4 PM)**24 Hr. Emergency Tel #** : 613-996-6666 (CANUTEC)**SECTION 2 - HAZARDS IDENTIFICATION****Classification** : WHMIS information: This product is not a WHMIS controlled product in Canada. It does not meet any of the criteria for a controlled product provided in Part IV of the Controlled Products Regulations (CPR).**Emergency Overview** : Dark, blue-green liquid. Petroleum odour.
Fumes from heated product or mists may irritate respiratory tract. May cause mild eye irritation.
Prolonged or repeated skin contact may cause drying and irritation.**POTENTIAL HEALTH EFFECTS:****Signs and symptoms of short-term (acute) exposure****Inhalation** : If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract.**Skin** : Direct skin contact may result in little or no irritation.**Eyes** : May cause mild transient irritation.**Ingestion** : May cause irritation of mouth, throat, and stomach. May cause nausea, stomach pain and vomiting.**Effects of long-term (chronic) exposure**

: Prolonged or repeated contact may cause drying, cracking and defatting of the skin.

Carcinogenic status : See TOXICOLOGICAL INFORMATION, Section 11.**Additional health hazards** : See TOXICOLOGICAL INFORMATION, Section 11.**Potential environmental effects** : See ECOLOGICAL INFORMATION, Section 12.**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Ingredients</u>	<u>CAS #</u>	<u>Wt. %</u>
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	60.00 - 100.00

SECTION 4 - FIRST AID MEASURES**Inhalation** : If breathed in, move person into fresh air. If breathing has stopped, give artificial respiration. Consult a physician.**Skin contact** : Remove contaminated clothing and shoes. Wash off with soap and plenty of water. If irritation persists, seek prompt medical attention.**Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, seek

- Ingestion** : Do not induce vomiting. Consult a physician. Never give anything by mouth to an unconscious person.
- Notes For Physician** : Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability

- : Not flammable under normal conditions of use. However, may ignite if exposed to extreme heat and flame. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Product may float, and be re-ignited at the water's surface.

Oxidizing properties : None known.

Explosion data: Sensitivity to mechanical impact / static discharge

- : Not expected to be sensitive to mechanical impact or static discharge.

Suitable extinguishing media : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical. Do not use water jet, as this may spread burning material.

Special fire-fighting procedures/equipment

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

Hazardous combustion products

- : Carbon oxides; Nitrogen oxides (NOx); Sulphur oxides; Phosphorus compounds; Polycyclic aromatic hydrocarbons; Other unidentified organic compounds.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions : All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.

Spill response/cleanup : Ventilate area of release. Remove all sources of ignition. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13).
Notify the appropriate authorities as required.

Prohibited materials : None known.

SECTION 7 - HANDLING AND STORAGE

Safe Handling procedures : Use with adequate ventilation. Wear suitable protective equipment during handling. Do not breathe fumes or mists. Avoid contact with skin, eyes and clothing. Keep away from heat and flame. Avoid contact with incompatible materials.
Wash thoroughly after handling. Keep containers tightly closed when not in use.

Storage requirements : Store in a cool, dry, well-ventilated area. Store away from incompatibles and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

Incompatible materials : Strong oxidizing agents.

Special packaging materials : Always keep in containers made of the same materials as the supply container.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits

<u>Ingredients</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Distillates (petroleum), hydrotreated heavy naphthenic	5 mg/m ³ (As 'Oil mist, mineral') (inhalable)	N/Av	5 mg/m ³ (As 'Oil mist, mineral')	N/Av

Ventilation and engineering measures

- Respiratory protection** : If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised. Advice should be sought from respiratory protection specialists.
- Skin protection** : Gloves impervious to the material are recommended. Advice should be sought from glove suppliers. Wear sufficient clothing to prevent skin contact.
- Eye / face protection** : Safety glasses with side-shields or chemical splash goggles.
- Other protective equipment** : An eyewash station and safety shower should be made available in the immediate working area.
- General hygiene considerations** : Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapours. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Wash hands thoroughly after using this product, and before eating, drinking or smoking.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid.	Appearance	: blue green
Odour	: Petroleum odour.	Odour threshold	: N/Av
pH	: N/Av		
Boiling point	: > 260°C	Specific gravity	: 0.925 @ 20°C
Melting/Freezing point	: N/Av	Coefficient of water/oil distribution	: N/Av
Vapour pressure (mmHg @ 20° C / 68° F)	: N/Av	Solubility in water	: Insoluble.
Vapour density (Air = 1)	: N/Av	Evaporation rate (n-Butyl acetate = 1)	: N/Av
Volatile organic Compounds (VOC's)	: N/Av	Volatiles (% by weight)	: N/Av
Flash point	: > 121.1°C	Auto-ignition temperature	: N/Av
Flash point Method	: Cleveland Open Cup	Upper flammable limit (% by vol.)	: N/Av
Lower flammable limit (% by vol.)	: N/Av	Flashback observed	: N/Av
Flame Projection Length	: N/Av	Viscosity	: 16.4 cSt
Absolute pressure of container	: N/Av		
General Information	: No additional information.		

Section 10: STABILITY AND REACTIVITY

- Stability and reactivity** : Stable under the recommended storage and handling conditions prescribed.
- Hazardous polymerization** : Hazardous polymerization does not occur.
- Conditions to avoid** : Avoid heat and open flame. Ensure adequate ventilation, especially in confined areas. Keep container tightly closed when not in use.
- Materials To Avoid And Incompatibility** : Strong oxidizing agents.
- Hazardous decomposition products** : None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

- Target organs** : Eyes, skin, respiratory system and digestive system.
- Routes of exposure** : *Inhalation*: YES *Skin Absorption*: NO *Skin & Eyes*: YES *Ingestion*: YES
- Irritancy** : May be mildly irritating to eyes and skin.
- Toxicological data** : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

Ingredients	LC₅₀ (4hr)	LD₅₀	
	inh, rat	(Oral, rat)	(Rabbit, dermal)
Distillates (petroleum), hydrotreated heavy naphthenic	> 5 mg/L (mist)	> 5000 mg/kg	> 2000 mg/kg

- Reproductive effects** : Not expected to cause reproductive effects.
Teratogenicity : Not expected to be a teratogen.
Mutagenicity : Not expected to be mutagenic in humans.
Epidemiology : None known or reported by the manufacturer.
Sensitization to material : Not expected to be a skin or respiratory sensitizer.
Synergistic materials : None known or reported by the manufacturer.
other important hazards : None known or reported by the manufacturer.
Conditions aggravated by overexposure : Pre-existing skin, eye and respiratory disorders.

SECTION 12 - ECOLOGICAL INFORMATION

- Ecotoxicity** : No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.
 See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 5000 mg/L (Rainbow trout)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 1000 mg/L (Daphnia magna)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 1000 mg/L/96hr (Green algae)	N/Av	None.

- Mobility** : No data is available on the product itself.
Persistence : No data is available on the product itself. Contains: Distillates (petroleum), hydrotreated heavy naphthenic.
 Distillates (petroleum), hydrotreated heavy naphthenic is not considered readily biodegradable and is insoluble in water. The substance may persist in the environment.
Bioaccumulation potential : No data is available on the product itself. See the following data for ingredient information.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	> 20	N/Av


Other Adverse Environmental effects

- : No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13 - DISPOSAL CONSIDERATIONS

- Handling for Disposal** : Handle waste according to recommendations in Section 7. Empty containers retain residue (liquid and/or vapour) and can be dangerous.
Methods of Disposal : Dispose of in accordance with federal, provincial and local hazardous waste laws.

SECTION 14: TRANSPORT INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	None	Not regulated.	Not regulated	None	
TDG Additional Information	None.				

SECTION 15 - REGULATORY INFORMATION**Labelling:**

This product is not a WHMIS controlled product in Canada. As such, this product does not require a WHMIS Supplier label.

Canadian Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

US Federal Information:


TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

SECTION 16 - OTHER INFORMATION**Legend**

: ACGIH: American Conference of Governmental Industrial Hygienists
 CAS: Chemical Abstract Services
 HSDB: Hazardous Substances Data Bank
 IARC: International Agency for Research on Cancer
 Inh: Inhalation
 LC: Lethal Concentration
 LD: Lethal Dose
 MSHA: Mine Safety and Health Administration
 N/Ap: Not Applicable
 N/Av: Not Available
 NIOSH: National Institute of Occupational Safety and Health
 NOEC: No observable effect concentration
 NTP: National Toxicology Program
 OECD: Organisation for Economic Co-operation and Development
 OSHA: Occupational Safety and Health Administration
 PEL: Permissible exposure limit
 RTECS: Registry of Toxic Effects of Chemical Substances
 STEL: Short Term Exposure Limit
 TDG: Canadian Transportation of Dangerous Goods Act & Regulations
 TLV: Threshold Limit Values
 TWA: Time Weighted Average
 WHMIS: Workplace Hazardous Materials Identification System

References

1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2016.
2. International Agency for Research on Cancer Monographs, searched 2016.
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2016 (Chempendium, HSDB and RTECs).
4. Material Safety Data Sheets from manufacturer.
5. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2016.

Prepared for: Radiator Specialty Co. of Canada 1711 Aimco Blvd. Mississauga, ON, Canada, L4W 1H7 Telephone: 905-625-9117 (Mon. - Fri., 8 AM - 4 PM) Please direct all enquiries to Radiator Specialty.	
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MSDS Preparation Date (mm/dd/yyyy)

: 07/26/2007

MSDS Revision Date (mm/dd/yyyy)

: 06/28/2016

Revision No.

: 4

Revision Information: (M)SDS sections updated:
12. ECOLOGICAL INFORMATION.**END OF DOCUMENT**