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MATERIAL SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product identifier : TRANS-FUSION

Product Use Additive for stopping automatic transmission leaks.

Chemical Family Mixture. Manufacturer part no. : M1432C

Manufacturer's name and address: Supplier's name and address:

Refer to Supplier Radiator Specialty Co., of Canada

1711 Aimco Blvd.

Mississauga, ON, Canada

L4W 1H7

: (905) 625-9117 (Monday - Friday, 8 AM - 4 PM) Information Telephone #

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

SECTION 2 - HAZARDS IDENTIFICATION

Classification

: WHMIS information: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR). WHMIS classification:

Class B3 (Combustible Liquids);

Class D2A (Materials Causing Other Toxic Effects, Very Toxic Material).

Labelling: Phrases recommended to appear on a supplier label, can be found in Section 15.

WHMIS symbols required on a supplier label:



Emergency Overview

Blue liquid. Petroleum odour.

Warning! Combustible liquid and vapour. Harmful if inhaled. May be harmful or fatal if swallowed. May cause nausea, vomiting, headache and other central nervous system effects. May cause respiratory irritation. May be an aspiration hazard. Can enter the lungs and cause damage. Prolonged or repeated skin contact may cause drying and irritation. May cause mild eye irritation. Possible birth defect hazard - contains material that may cause birth defects, based on animal data. Possible cancer hazard - contains material which may cause cancer.

Contains material that may be harmful in the environment.

POTENTIAL HEALTH EFFECTS:

Signs and symptoms of short-term (acute) exposure

Inhalation: May cause irritation to the nose, throat and upper respiratory tract. Symptoms may include pain, headache,

nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Overexposure to sprays

or mists may cause chemical pneumonitis (inflammation of lung tissue).

: May cause mild skin irritation. Prolonged contact, such as when trapped against the skin under clothing or Skin

jewelry, may be more irritating.

: May cause mild eye irritation. Slight stinging, redness, and watering. Eyes

Ingestion: May cause irritation of mouth, throat, and stomach. May cause nausea, vomiting, headache and other

central nervous system effects. Product may present an aspiration hazard, if ingested in large amounts, causing life-threatening lung injury. Aspiration into the lungs during swallowing or subsequent vomiting may

cause chemical pneumonitis, which can be fatal.

Effects of long-term (chronic) exposure

: Prolonged or repeated skin contact may cause defatting and drying resulting in irritation and possible dermatitis. Contains material which may cause adverse blood system effects.

Prolonged overexposure may cause liver and kidney effects.

Carcinogenic status Possible cancer hazard. See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards : May cause birth defects. See TOXICOLOGICAL INFORMATION, Section 11. MSDS Revision Date (mm/dd/yyyy): 06/29/2016

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Potential environmental effects

 Contains material that may be harmful in the environment. See Section 12 for more environmental information.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	CAS#	Wt.%
Distillates (petroleum), hydrogenated heavy paraffinic	64742-54-7	60.00 - 100.00
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	10.00 - 30.00
Hydrotreated light paraffinic distillate	64742-55-8	7.00 - 13.00
Solvent naphtha (petroleum), light aromatic	64742-95-6	5.00 - 10.00
1,2,4-Trimethylbenzene	95-63-6	1.00 - 5.00
Chlorinated paraffins	63449-39-8	1.00 - 5.00
Hydrotreated naphthenic petroleum	64742-53-6	1.00 - 5.00
Polymethacrylate	50867-55-5	1.00 - 5.00
Diethylbenzene	25340-17-4	0.10 - 1.00
Cumene	98-82-8	0.10 - 1.00
1,3,5-Trimethylbenzene	108-67-8	0.10 - 1.00
Xylene	1330-20-7	0.10 - 1.00

SECTION 4 - FIRST AID MEASURES

Inhalation : Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If

breathing is difficult, give oxygen by qualified medical personnel only. Get medical attention

if symptoms persist.

Skin contact : Remove/Take off immediately all contaminated clothing. Wash off immediately 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

prompt medical attention.

Ingestion: Seek immediate medical attention/advice. Do not induce vomiting. Never give anything by

mouth to an unconscious person.

Notes For Physician : Treat symptomatically. This product is a CNS depressant.

SECTION 5 - FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability

: Combustible liquid and vapour. Will ignite when exposed to heat, flame and other sources of ignition. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Vapours may be heavier than air and may collect in confined and low-lying areas. Product may float, and be re-ignited at the water's surface.

Oxidizing properties

: None known.

Explosion data: Sensitivity to mechanical impact / static discharge

: May be sensitive to static discharge. Not expected to be sensitive to mechanical impact.

Suitable extinguishing media :

Dry chemical, foam, carbon dioxide and water fog. 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; Sulphur oxides; Nitrogen oxides (NOx); Phosphorus compounds; Aldehydes; Polycyclic aromatic hydrocarbons; Hydrogen chloride gas; Phosgene; Chlorine; Other unidentified organic compounds.

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SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions : All persons dealing with the clean-up should wear the appropriate personal 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. If

necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural

waterway or drinking supply.

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

equired.

Prohibited materials: Do not use combustible absorbents, such as sawdust.

SECTION 7 - HANDLING AND STORAGE

Safe Handling procedures : Use in a well-ventilated area. Wear suitable protective equipment during handling. Avoid

breathing vapours. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks and open flames. Avoid contact with incompatible materials. Wash thoroughly after handling. Keep container tightly closed when not in use. Empty containers retain residue (liquid and/or

vapour) and can be dangerous.

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. No smoking in

the area.

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

	ACGIH TLV		OSHA I	<u>PEL</u>
<u>Ingredients</u>	<u>TWA</u>	STEL	<u>PEL</u>	STEL
Distillates (petroleum), hydrogenated heavy paraffinic	5 mg/m³ (inhalable) (severely refined mineral oils)	N/Av	5 mg/m³ (As 'Oil mist, mineral')	N/Av
Distillates (petroleum), hydrotreated heavy naphthenic	5 mg/m³ (As 'Oil mist, mineral') (inhalable)	N/Av	5 mg/m³ (As 'Oil mist, mineral')	N/Av
Hydrotreated light paraffinic distillate	N/Av	N/Av	N/Av	N/Av
Solvent naphtha (petroleum), light aromatic	N/Av	N/Av	N/Av	N/Av
1,2,4-Trimethylbenzene	25 ppm (mixed isomers)	N/Av	25 ppm (trimethylbenzene isomers) (final rule limit)	N/Av
Chlorinated paraffins	N/Av	N/Av	N/Av	N/Av
Hydrotreated naphthenic petroleum	5 mg/m³ (As 'Oil mist, mineral') (inhalable)	N/Av	5 mg/m³ (As 'Oil mist, mineral')	N/Av
Polymethacrylate	N/Av	N/Av	N/Av	N/Av
Diethylbenzene	5 ppm (AIHA WEEL)	N/Av N/Av	N/Av	N/Av
Cumene	50 ppm	N/Av	50 ppm (245 mg/m³) (Skin)	N/Av
1,3,5-Trimethylbenzene	25 ppm (mixed isomers)	N/Av	25 ppm (trimethylbenzene isomers) (final rule limit)	N/Av
Xylene	100 ppm	150 ppm	100 ppm (435 mg/m³)	N/Av

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Ventilation and engineering measures

: Use general or local exhaust ventilation to maintain air concentrations below recommended

exposure limits.

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. Depending on conditions of use, an impervious apron should be worn.

Eye / face protection : If splashes are likely to occur, wear: 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 vapors or mists. 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: N/AvOdour: Petroleum odour.Odour threshold: N/Av

pH : N/Av

Boiling point : > 149°C Specific gravity : 0.8806

Melting/Freezing point : N/Av Coefficient of water/oil distribution

: N/Av

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Vapour pressure (mmHg @ 20° C / 68° F) Solubility in water : Insoluble.

: N/Av

Vapour density (Air = 1) : N/Av Evaporation rate (n-Butyl acetate = 1)

: N/Av

Volatile organic Compounds (VOC's) Volatiles (% by weight) : N/Av

N/Av

Flash point : 60.6°C

Flash point Method : Tag closed cup Auto-ignition temperature : N/Av Lower flammable limit (% by vol.)

Upper flammable limit (% by vol.)

Lower flammable limit (% by vol.)
: N/Av

: N/Av

Flame Projection Length : N/Ap Flashback observed : N/Ap

Absolute pressure of container Viscosity : 20.5 cSt @ 40°C

: N/Ap

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. Keep away from direct sunlight. Ensure adequate ventilation,

especially in confined areas. Avoid contact with incompatible materials.

Materials To Avoid And Incompatibility

: Strong oxidizing agents

Hazardous decomposition products

: Refer to Section 5 for additional 'Hazardous combustion products'.

SECTION 11 - TOXICOLOGICAL INFORMATION

Target organs : Eyes, skin, respiratory system, central nervous system, blood system, liver, brain and

kidneys.

Routes of exposure : Inhalation: YES Skin Absorption: NO Skin & Eyes: YES Ingestion: YES

Irritancy : Mild.

Toxicological data

: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

	LC ₅₀ (4hr)	LD ₅₀		
<u>Ingredients</u>	inh, rat	(Oral, rat)	(Rabbit, dermal)	
Distillates (petroleum), nydrogenated heavy paraffinic	> 5.53 mg/L (mist)	> 15 000 mg/kg	> 5000 mg/kg	
Distillates (petroleum), nydrotreated heavy naphthenic	> 5 mg/L (mist)	> 5000 mg/kg	> 2000 mg/kg	
Hydrotreated light paraffinic	> 4000 mg/L (mist) (No mortality)	> 5000 mg/kg	> 5000 mg/kg	
Solvent naphtha (petroleum), ight aromatic	> 17.7 mg/L (vapour)	8400 mg/kg	> 3160 mg/kg	
1,2,4-Trimethylbenzene	18 mg/L (vapour)	5000 mg/kg	> 3160 mg/kg	
Chlorinated paraffins	N/Av	> 5000 mg/kg	N/Av	
Hydrotreated naphthenic petroleum	≥ 2.18 mg/L (mist)	> 5000 mg/kg	> 2000 mg/kg	
Polymethacrylate	N/Av	N/Av	N/Av	
Diethylbenzene	> 1852 ppm (10.2 mg/L) (vapour) (No mortality)	2050 mg/kg	> 5000 mg/kg	
Cumene	8000 ppm (39 mg/L) (vapour)	2260 mg/kg	10 627 mg/kg	
,3,5-Trimethylbenzene	24 mg/L (vapour)	23 000 mg/kg	> 3160 mg/kg	
Kylene	6350 ppm (27.6 mg/L) (vapour)	3253 mg/kg	12 180 mg/kg	

Carcinogenic status

: This product contains Chlorinated paraffin. Chlorinated paraffin is classified as carcinogenic by IARC (Group 2B). No other components are classified as carcinogenic by IARC, ACGIH, OSHA or NTP.

Reproductive effects

: Not expected to cause reproductive effects.

Teratogenicity

: This product contains Xylene. Xylene may cause fetotoxic effects at doses which are not maternally toxic, based on animal data.

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

: CNS depression may result from extreme exposures.

Conditions aggravated by overexposure

: Pre-existing skin, eye, respiratory and central nervous system disorders.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity

: Harmful to aquatic life with long lasting effects. 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. This product contains the following substance which may also be hazardous for the environment: Solvent naphtha (petroleum), light aromatic; 1,2,4-Trimethylbenzene; Diethylbenzene; Cumene; 1,3,5-Trimethylbenzene; Xylene. Other materials present in this product may present environmental hazards, but are present at very low levels that do not affect the environmental hazard classification for this product.

See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

		Toxicity to Fish		
<u>Ingredients</u>	CAS No	LC50 / 96h	NOEC / 21 day	M Factor
Distillates (petroleum), hydrogenated heavy paraffinic	64742-54-7	> 5000 mg/L (Rainbow trout)	> 1000 mg/L/28-day (QSAR)	None.
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 5000 mg/L (Rainbow trout)	N/Av	None.
Hydrotreated light paraffinic distillate	64742-55-8	N/Av	N/Av	None.
Solvent naphtha (petroleum), light aromatic	64742-95-6	9.2 mg/L (Rainbow trout)	N/Av	None.
1,2,4-Trimethylbenzene	95-63-6	7.72 mg/L (Fathead minnow)	N/Av	None.
Chlorinated paraffins	63449-39-8	> 300 mg/L (Rainbow trout)	N/Av	None.
Hydrotreated naphthenic petroleum	64742-53-6	> 100 mg/L (Fathead minnow)	N/Av	None.
Polymethacrylate	50867-55-5	N/Av	N/Av	None.
Diethylbenzene	25340-17-4	0.673 mg/L (Rainbow trout)	N/Av	1
Cumene	98-82-8	4.8 mg/L (Rainbow trout)	N/Av	None.
1,3,5-Trimethylbenzene	108-67-8	12.52 mg/L (Goldfish)	N/Av	None.
Xylene	1330-20-7	8.2 mg/L (Rainbow trout)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Daphnia			
		EC50 / 48h	NOEC / 21 day	M Factor	
Distillates (petroleum), hydrogenated heavy paraffinic	64742-54-7	> 10 000 mg/L (Daphnia magna) (Read-across)	10 mg/L	None.	
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 1000 mg/L (Daphnia magna)	N/Av	None.	
Hydrotreated light paraffinic distillate	64742-55-8	N/Av	N/Av	None.	
Solvent naphtha (petroleum), light aromatic	64742-95-6	6.16 mg/L (Daphnia magna)	N/Av	None.	
1,2,4-Trimethylbenzene	95-63-6	3.6 mg/L (Daphnia magna)	N/Av	None.	
Chlorinated paraffins	63449-39-8	> 5.1 mg/L (Daphnia magna)	N/Av	None.	
Hydrotreated naphthenic petroleum	64742-53-6	> 10 000 mg/L (Daphnia magna)	10 mg/L (NOEL)	None.	
Polymethacrylate	50867-55-5	N/Av	N/Av	None.	
Diethylbenzene	25340-17-4	2.01 mg/L (Daphnia magna)	0.93 mg/L	None.	
Cumene	98-82-8	4 mg/L/24hr (Daphnia magna)	N/Av	None.	
1,3,5-Trimethylbenzene	108-67-8	6 mg/L (Daphnia magna)	N/Av	None.	
Xylene	1330-20-7	3.2 - 9.56 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), hydrogenated heavy paraffinic	64742-54-7	N/Av	> 100 mg/L/72hr (Green algae) (Read-across)	None.
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 1000 mg/L/96hr (Green algae)	N/Av	None.
Hydrotreated light paraffinic distillate	64742-55-8	N/Av	N/Av	None.
Solvent naphtha (petroleum), light aromatic	64742-95-6	N/Av	N/Av	None.
1,2,4-Trimethylbenzene	95-63-6	2.356 mg/L/96hr (Green algae) (QSAR)	N/Av	None.
Chlorinated paraffins	63449-39-8	> 3.2 mg/L/72hr (Green algae)	N/Av	None.
Hydrotreated naphthenic petroleum	64742-53-6	N/Av	> 100 mg/L/72hr (NOEL)	None.
Polymethacrylate	50867-55-5	N/Av	N/Av	None.
Diethylbenzene	25340-17-4	1.21 mg/L/72hr (Green algae)	0.547 mg/L/72hr	None.
Cumene	98-82-8	2.6 mg/L/72hr (Green algae)	N/Av	None.
1,3,5-Trimethylbenzene	108-67-8	3.191 mg/L/96hr (Green algae) (QSAR)	N/Av	None.
Xylene	1330-20-7	3.2 - 4.9 mg/L/72hr (Green algae)	N/Av	None.

Mobility

: No data is available on the product itself.

Persistence

: No data is available on the product itself.

Contains the following chemicals which are considered to be inherently biodegradable: Distillates (petroleum), hydrotreated heavy naphthenic; Solvent naphtha (petroleum), light aromatic; Chlorinated paraffins; Diethylbenzene; Cumene; Xylene.

Contains the following chemicals which are not readily biodegradable: Distillates (petroleum), hydrogenated heavy paraffinic; 1,2,4-Trimethylbenzene; Hydrotreated

naphthenic petroleum; 1,3,5-Trimethylbenzene.

Bioaccumulation potential

: No data is available on the product itself. See the following data for ingredient information.

Components	Partition coefficient n-octanol/water (log Kow)	Bioconcentration factor (BCF)		
Distillates (petroleum), hydrogenated heavy paraffinic (CAS 64742-54-7)	3.9 - 6	N/Av		
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	> 20	N/Av		
Hydrotreated light paraffinic distillate (CAS 64742-55-8)	3.9 - 6	N/Av		
Solvent naphtha (petroleum), light aromatic (CAS 64742-95-6)	2.1 - 6 (calculated)	10 - 2500 (calculated)		
1,2,4-Trimethylbenzene (CAS 95-63-6)	3.78	31 - 275		
Chlorinated paraffins (CAS 63449-39-8)	9.7 - 17	1 - 192		
Hydrotreated naphthenic petroleum (CAS 64742-53-6)	3.9 - 6 (calculated)	N/Av		
Diethylbenzene (CAS 25340-17-4)	4 - 4.6	320 - 854 (Fish)		
Cumene (CAS 98-82-8)	3.55	224 (calculated)		
1,3,5-Trimethylbenzene (CAS 108-67-8)	3.6 - 3.93	23 - 328		
Xylene (CAS 1330-20-7)	3.12 - 3.2	50 - 58		

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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. Do not cut, weld, drill or grind on or near this container. 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: TRANPORT INFORMATION

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

SECTION 15 - REGULATORY INFORMATION

Labelling:

Warning! Combustible liquid and vapour. Harmful if inhaled. May be harmful or fatal if swallowed. May cause respiratory irritation. May cause headache, nausea, dizziness and other symptoms of central nervous system depression. May be an aspiration hazard. Can enter the lungs and cause damage. Prolonged or repeated skin contact may cause drying and irritation. May cause mild eye irritation. Possible birth defect hazard - contains material that may cause birth defects, based on animal data. Possible cancer hazard - contains material which may cause cancer.

Precautions: Use in a well-ventilated area. Wear suitable protective equipment during handling. Avoid breathing vapours. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks and open flames. Avoid contact with incompatible materials. Wash thoroughly after handling. Store in a cool, dry, well ventilated area, away from heat and ignition sources.

FIRST AID: If inhaled, move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing stops, provide artificial respiration. Get medical attention if symptoms persist. For skin contact, wash with soap and water while removing contaminated clothing. If irritation persists, seek prompt medical attention. For eye contact, flush with running water for at least 15 minutes. If irritation persists, seek prompt medical attention. If ingested, do not induce vomiting. Never give anything by mouth to an unconscious person. Seek immediate medical attention/advice.

Refer To Material Safety Data Sheet for further information.

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

AIHA: American Industrial Hygiene Association

CAS: Chemical Abstract Services CNS: Central Nervous System

HSDB: Hazardous Substances Data Bank

IARC: International Agency for Research on Cancer

Inh: Inhalation

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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

WEEL: Workplace Environmental Exposure Level

WHMIS: Workplace Hazardous Materials Identification System

References

- 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.
- 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.

Prepared by:

ICC The Compliance Center Inc.

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DISCLAIMER OF LIABILITY

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MSDS Preparation Date (mm/dd/yyyy)

: 08/02/2007

MSDS Revision Date (mm/dd/yyyy)

: 06/29/2016

Revision No. : 4

Revision Information: (M)SDS sections updated:

12. ECOLOGICAL INFORMATION.

END OF DOCUMENT