16310 R-134a REFRIGERANT PLUS PAG OIL

Safety Data Sheet

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

Date of issue: 08/25/2014 Revision date: 08/25/2014 Supersedes: 05/13/2013 Version: 2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Trade name : 16310 R-134a REFRIGERANT PLUS PAG OIL

Product code : 16310

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Polyalkylene Glycol based lubricant plus refrigerant charge.

1.3. Details of the supplier of the safety data sheet

Tire Seal, Inc.
3574 Corona Street
33461 Lake Worth, Florida - USA
T 561-582-2245 - F 561-582-1499
www.supercool.ac

SDS Preparer Paul J. Erdek

1.4. Emergency telephone number

Emergency number : USA PHONE:1-800-373-7542, INT'L: 1-484-951-2432
DGA/AAG ENVIRONMENTAL CONTRACT: DGA4000-048

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

WHMIS Classification

Class A - Compressed Gas
Class D Division 2 Subdivision B - Toxic material causing other toxic effects

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS04 GHS08 GHS09

Signal word (GHS-US) : Warning

2.3. Other hazards

Other hazards not contributing to the classification : Contains gas under pressure; may burst if heated.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
PPG-3 METHYL ETHER	(CAS No) 37286-64-9	40 - 55	Not classified
1,1,1,2-tetrafluoroethane	(CAS No) 811-97-2	25 - 40	Not classified
tricresyl phosphates, mixture of isomers, conc o-tricresyl phosphate>95%	(CAS No) 1330-78-5	0.1 - 0.5	Not classified
3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexylcarboxylate	(CAS No) 2386-87-0	0.1 - 0.5	Not classified
2,6-di-tert-butyl-p-cresol	(CAS No) 128-37-0	0.1 - 0.5	Acute Tox. 4 (Oral), H302

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Content under pressure. "Frostbite-like" effects may occur if the liquid or escaping vapors contact the eyes or skin. Gross inhalation over exposure may cause: Central nervous system depression with dizziness, confusion, incoordination, drowsiness or unconsciousness or death. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention. Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and shoes, and launder before reuse. Use approved skin lotions or creams to replace lost skin oils. Treat for frostbite if necessary by gently warming affected area. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : DO NOT INDUCE VOMITING. Give nothing by mouth. Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/injuries after inhalation : Central nervous system depression. Dizziness. Mental confusion.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water fog, carbon dioxide, foam, dry chemical. Use water spray to keep containers cool that are exposed to heat or flames. Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Warning!! Contents under pressure. Container may rupture under fire conditions. Decomposition may occur. Wear approved positive-pressure self-contained breathing apparatus and protective clothing.

6.1.1. For non-emergency personnel

Protective equipment : Wear appropriate protective clothing and equipment to prevent skin and eye contact.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Increase area ventilation. Do not puncture or incinerate container. Contents under pressure.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store aways from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : CAUTION: COMPRESSED GAS. Do not puncture, incinerate or store above 120°F. Do not store in passenger compartment of automobile. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Should not be mixed with air for leak testing or used for any other purpose above atmospheric pressure. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not store above 120°F. Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : < 49 °C Do not store in passenger compartment of automobiles.

Storage area : Store in a dry area. Store in a cool area.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2,6-di-tert-butyl-p-cresol (128-37-0)		
ACGIH	ACGIH TWA (mg/m³)	2 mg/m³

8.2. Exposure controls

Appropriate engineering controls : Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Showers. Eyewash stations.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Insulated gloves. Wear protective gloves.

Eye protection : Wear safety glasses or goggles to protect against exposure. Chemical goggles or safety glasses.

Skin and body protection : Avoid skin contact. Wear protective clothing and gloves.

Respiratory protection : Use in a well ventilated area. Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear, colorless liquid or gas at ambient temperatures.

Colour : Clear to Yellowish.

Odour : Characteristic.

Odour threshold : No data available

pH : No data available

Relative evaporation rate (butylacetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : -26.5 °C

Flash point : No data available

Self ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapour pressure : No data available

Relative vapour density at 20 °C : No data available

Relative density : No data available

Solubility : No data available

Log Pow : No data available

Log Kow : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidising properties : No data available

Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions. Stable under normal temperatures and pressures. Not established.

10.3. Possibility of hazardous reactions

Hazardous Polymerization: WILL NOT OCCUR. Not established.

10.4. Conditions to avoid

Do not expose to heat or store at temperatures above 120 F. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. This material can be decomposed by high temperatures forming hydrofluoric acid and possibly carbonyl fluoride. fume.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

2,6-di-tert-butyl-p-cresol (128-37-0)	
LD50 oral rat	890 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; >6000 mg/kg bodyweight; Rat)
LD50 dermal rat	> 2000 mg/kg (Rat; Literature study; OECD 402: Acute Dermal Toxicity; >2000 mg/kg bodyweight; Rat; Experimental value)
ATE (oral)	890.000 mg/kg bodyweight

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Based on available data, the classification criteria are not met

Carcinogenicity : (Not expected to cause cancer. This oil meets the IP-346 criteria of less than 3 percent PAH's and is not considered a carcinogen by the International Agency for Research on Cancer.)

2,6-di-tert-butyl-p-cresol (128-37-0)	
IARC group	3

Reproductive toxicity : Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Based on available data, the classification criteria are not met

Aspiration hazard : Based on available data, the classification criteria are not met

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation : Central nervous system depression. Dizziness. Mental confusion.

SECTION 12: Ecological information

12.1. Toxicity

2,6-di-tert-butyl-p-cresol (128-37-0)	
LC50 fishes 1	0.199 mg/l (96 h; Pisces)
EC50 Daphnia 1	0.48 mg/l (48 h; Daphnia magna; GLP)
Threshold limit algae 1	> 0.4 mg/l (72 h; Scenedesmus subspicatus; GLP)
Threshold limit algae 2	0.363 mg/l (Algae; Chronic)

12.2. Persistence and degradability

16310 R-134a REFRIGERANT PLUS PAG OIL	
Persistence and degradability	Not established.

2,6-di-tert-butyl-p-cresol (128-37-0)	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil. Adsorbs into the soil. Low potential for mobility in soil. Photooxidation in the air.
Biochemical oxygen demand (BOD)	0.51 g O^2/g substance
Chemical oxygen demand (COD)	2.27 g O^2/g substance
ThOD	2.977 g O^2/g substance
BOD (% of ThOD)	0.17 % ThOD

12.3. Bioaccumulative potential

16310 R-134a REFRIGERANT PLUS PAG OIL	
Bioaccumulative potential	Not established.

2,6-di-tert-butyl-p-cresol (128-37-0)	
BCF fish 1	230 - 2500 (56 days; Cyprinus carpio)
Log Pow	5.1 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).

12.4. Mobility in soil

2,6-di-tert-butyl-p-cresol (128-37-0)	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Disposal should be made in accordance with federal, state and local regulations. Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with TDG

TDG

Transport document description : 1950, 2.2

UN-No (TDG) : 1950

TDG Primary Hazard Classes : 2.2 - Class 2.2 - Non-Flammable, Non-Toxic Gas.

DOT

UN-No.(DOT) : 1950

DOT Proper Shipping Name : Aerosols, LTD QTY

Department of Transportation (DOT) Hazard Classes : 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115

Hazard labels (DOT) : Limited Quantity

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

CANADA

16310 R-134a REFRIGERANT PLUS PAG OIL	
WHMIS Classification	Class A - Compressed Gas Class D Division 2 Subdivision B - Toxic material causing other toxic effects

15.2. International regulations

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

No additional information available

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

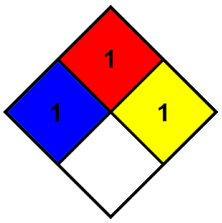
Full text of H-phrases: see section 16:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
H302	Harmful if swallowed

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



SDS Canada (GHS)

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