

**Safety Data Sheet** - prepared according to Regulation (EC) No. 2015/830

Date of compilation: 28 June 2012

Revision date: 30 June 2016

Version: 2.1

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Chemical type : Preparation  
Trade name : SNOW LEOPARD HFO PAG46e with Glo-Leak UV  
Colour Index/ Chemical name : Polyalkylene Glycol alkyl ether  
Chemical characterization : Refrigerant Lubricant

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1. Relevant identified uses**

Main use category : Refrigerant Lubricant

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

PRIMALEC (R J Doran & Co Ltd) Green Farm, Nettlestead Green  
MAIDSTONE - ME18 5HD, England  
T +44 (01)622 816955 customers@primalec.co.uk

**1.4. Emergency telephone number**

Emergency number +44 (01)622 816955 : Other - specify

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

**Classification under CLP:** \* Skin Sens. 1: H317; Aquatic Chronic 3: H412

**Most important adverse effects:** May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects.

**2.2. Label elements**

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

Hazard statements:

\* H317: May cause an allergic skin reaction.

H412: Harmful to aquatic life with long lasting effects.

Hazard pictograms: \* GHS07: Exclamation mark



Signal words: \* Warning

**Precautionary statements:**

\* P280: Wear protective gloves/protective clothing/eye protection/face protection.

P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.

P302+352: IF ON SKIN: Wash with plenty of water/soap.

P333+313: If skin irritation or rash occurs: Get medical attention.

P273: Avoid release to the environment.

P501: Dispose of contents/container to hazardous or special waste collection point.

**2.3. Other hazards**

**PBT:** This product is not identified as a PBT/vPvB substance

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**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Hazardous ingredients:**

2-[(4-TERT-BUTYLPHENOXY)METHYL]OXIRANE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
221-453-2	3101-60-8	-	Skin Sens. 1: H317; Aquatic Chronic 2: H411	1-2.5%

2,6-DI-TERT-BUTYL-P-CRESOL

204-881-4	128-37-0		Aquatic Acute 1: H400; Aquatic Chronic 1: H410	<1%
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**SECTION 4: First aid measures****4.1 Description of First Aid Measures**

<b>First-aid measures general:</b>	Information to Physicians: Treat symptomatically
<b>First-aid measures after inhalation:</b>	Remove to fresh air. Ventilate suspected areas, if discomfort persists, obtain medical attention
<b>First-aid measures after skin contact:</b>	Rinse, then wash skin with water and soap. Remove contaminated clothing, Do not remove clothing if it sticks to the skin, seek advice, or if in discomfort seek medical attention.
<b>First-aid measures after eye contact:</b>	Rinse immediately with plenty of water, under eyelids, and Remove contact lens if present. Continue rinsing thoroughly.
<b>First-aid measures after ingestion:</b>	Rinse thoroughly with water. Never give anything by mouth to an unconscious person or if cramps are present.

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

<b>Symptoms/injuries after inhalation:</b>	No Symptoms known to date
<b>Symptoms/injuries after skin contact:</b>	There may be mild irritation at the site of contact. Dryness
<b>Symptoms/injuries after eye contact:</b>	There may be irritation and redness.
<b>Symptoms/injuries after ingestion :</b>	There may be irritation. Vomiting

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

No additional information available Seek Physicians advice

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

Suitable extinguishing media:	Water spray. Extinguishing powder, Carbon dioxide (CO <sub>2</sub> ), alcohol resistant foam.
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**5.2. Special hazards arising from the substance or mixture**

Reactivity :	On burning: release of harmful/irritant gases/vapours.
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**5.3. Advice for firefighters**

Firefighting instructions:	Standard procedure for chemical fires. Cool tanks/drums with water spray/remove them into safety.
Protection during firefighting:	Use appropriate respiratory protection.
Other information:	Contaminated fire-fighting water must be collected separately.

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**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

General measures: Avoid contact with skin, eyes and clothing. Avoid breathing dust/fume/gas/mist/vapours/spray. When using do not eat, drink or smoke.

**6.1.1. For non-emergency personnel**

Protective equipment: Wear personal protection equipment. Refer to chapter 8.

Emergency procedures: Ensure adequate ventilation. Wear suitable respiratory equipment in case of insufficient ventilation. Keep unprotected persons from entering.

**6.1.2. For emergency responders**

Protective equipment: Wear personal protection equipment. Refer to chapter 8.

Emergency procedures: Ensure adequate ventilation. Wear suitable respiratory equipment in case of insufficient ventilation. Keep unprotected persons from entering.

**6.2. Environmental precautions**

Do not empty into drains or the aquatic environment.

**6.3. Methods and material for containment and cleaning up**

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.

Wash away remainder with plenty of water.

**6.4. Reference to other sections**

See also section 8 & 13.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Precautions for safe handling:

Reduce/avoid exposure and/or contact. Keep away from sources of ignition - No smoking.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Do not drink, eat or smoke in the workplace.

**7.2. Conditions for safe storage, including any incompatibilities**

Storage conditions:

Keep away from heat. Protect from freezing. Keep out of the reach of children.

Prohibitions on mixed storage:

Keep away from food, drink and animal feedingstuffs.

Storage area:

Ensure adequate ventilation of the storage area. Keep container tightly closed. Store in a cool dry place.

**7.3. Specific end use(s)**

No additional information available.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

No additional information available

**8.2. Exposure controls**

**Appropriate engineering controls:** Ventilate area. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

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**Personal protective equipment:** Gloves. Protective clothing. Safety glasses.

<b>Hand protection:</b>	Wear suitable gloves resistant to chemical penetration (to European standard EN 374 or equivalent), e.g. PVC or nitrile rubber. Since the product consists of several substances, it is not possible to estimate the durability of the glove material beforehand and it therefore needs to be tested before use
<b>Eye protection:</b>	Tightly sealed safety glasses.
<b>Skin and body protection</b>	Wear suitable protective clothing
<b>Respiratory protection:</b>	With correct and proper use, and under normal conditions, breathing protection is not required.
<b>Environmental exposure controls:</b>	Avoid release to the environment.
<b>Other information:</b>	Keep away from food, drink and animal feedingstuffs.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state	: Liquid
Appearance	: liquid.
Colour	: light amber
Odour	: Characteristic
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Pour point	: <-25°C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: >230°C ASTM D6450
Autoflammability	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density	: >1 (air=1)
Relative density at 20 °C	: 0.99 g/cm <sup>3</sup>
Solubility	: Water: Insoluble
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: 44.6 mm <sup>2</sup> /s
Viscosity, @40°C	: 46 mm <sup>2</sup> /s (typical)
Explosive properties	: Product does not present an explosion hazard.
Oxidising properties	: No data available
Explosive limits	: No data available

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**9.2. Other information**

No additional information available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Stable under recommended transport or storage conditions.

**10.2. Chemical stability**

The product is stable under normal handling- and storage conditions.

**10.3. Possibility of hazardous reactions**

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below

**10.4. Conditions to avoid**

Sources of ignition. Flames. Heat.

**10.5. Incompatible materials**

Oxidizing and reducing agents. Strong acids

**10.6. Hazardous decomposition products**

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, nitrogen oxides (NOx).

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

Acute toxicity : Not classified

Hazard	Route	Basis
Respiratory/skin sensitisation	DRM	Hazardous: calculated

**Skin contact:** \*May cause an allergic skin reaction. There may be irritation/redness at the site of contact.**Eye contact:** There may be irritation and redness.**Ingestion:** None known. Inhalation: None known.**Delayed / immediate effects:** \* Delayed effects can be expected after long-term exposure.**Other information:** \* None known.**SECTION 12: Ecological information****12.1. Toxicity****Hazardous ingredients: 2-[(4-TERT-BUTYLPHENOXY)METHYL]OXIRANE**

DAPHNIA MAGNA	48H EC50	67.9	mg/l
GREEN ALGAE (Pseudokirchneriella subcapitata)	72H ErC50	9.0	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC50	7.5	mg/l

**2,6-DI-TERT-BUTYL-P-CRESOL**

ALGAE	72H ErC50	0.758	mg/l
DAPHNIA	48H EC50	0.48	mg/l
FISH	96H LC50	0.199	mg/l

**12.2 Persistence and degradability**

\* This product is partially/slowly biodegradable. BOD 28 = 16% ThOD (Sturm Test).

**12.3 Bioaccumulative potential**

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No bioaccumulation potential

**12.4 Mobility in soil**

Ecology - soil

Readily absorbed into soil.

Results of PBT assessment

No data available

**12.5 Results of PBT assessment****PBT identification:** This product is not identified as a PBT/vPvB substance.**12.6. Other adverse effects**

\* Harmful to aquatic life with long lasting effects.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Regional legislation (waste) : Observe regulations when disposing. EU (E.W.C) is 13-02-06

Sewage disposal recommendations: Substance must not be discharged into the sewer.

Waste disposal recommendations : Consider recycling after cleansing. Remove to an authorized waste incinerator.

**SECTION 14: Transport information**

In accordance with ADR / RID / ADN / IMDG / ICAO / IATA 14.1.

UN number

This product does not require a classification for transport.

**14.2. UN proper shipping name**

Not applicable

**14.3. Transport hazard class(es)**

Not applicable

**14.4. Packing group**

Not applicable

**14.5. Environmental hazards**

Other information

No supplementary information available.

**14.6. Special precautions for user**

14.6.1. Overland transport No additional information available

14.6.2. Transport by Sea No additional information available

14.6.3. Air transport No additional information available

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Specific regulations:**

15.1.1. EU-Regulations

EC Symbols:

GHS07: Exclamation mark

EC Risk Phrases:

See Section 16 for full list of relevant risk phrases

EC Safety Phrases:

See Section 16 for full list of relevant safety phrases

EU Directives:

Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC

Statutory Instruments:

Chemicals ( Hazard Information and Packaging) regulations.

Approved code of practice:

Classification and labelling of Substances and Preparations dangerous for supply. Safety data sheets for substances and preparations.

Guidance notes:

Workplace Exposure limits EH40. CHIP for everyone HSG(108)

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**15.1.2. National regulations**

Global Chemical Inventories: EC (EINECS) - All components listed or exempt. US (TSCA) - All components listed or exempt. Australia (AICS) - All components listed or exempt. New Zealand (NZIoC) - All components listed or exempt. Canada (DSL) - All components listed or exempt. Canada (NDSL) - All components listed or exempt. China (IECSC) - All components listed or exempt. Korea (KECI) - All components listed or exempt. Philippines (PICCS) - All components listed or exempt. Taiwan - All components listed or exempt.

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**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

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**SECTION 16: Other information****Other information**

This safety data sheet is prepared in accordance with EU Commission Regulation (EU) No 2015/830.

\* indicates text in the SDS which has changed since the last revision.

**Relevant Phrases used in Sections 2 & 3**

H317: May cause an allergic skin reaction.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

H411: Toxic to aquatic life with long lasting effects.

H412: Harmful to aquatic life with long lasting effects

Data sources : This information is based on the present data (producers, chemical safety cards, <http://echa.europa.eu/>, <http://ecb.jrc.ec.europa.eu/esis/>, ...).

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the newly made-up material.