

**Safety data sheet
according to 1907/2006/EC, Article 31 - Regulation (EU) 2020/878**

Printing date 27.10.2023
UFI : J200-20RD-M002-UXGA

Version number 1

Revision and application 27.10.2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name: RADIATOR LIQUID****1.2 Relevant identified uses of the substance or mixture and uses advised against****Sector of Use**

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU21 Consumer uses: Private households / general public / consumers

Application of the substance / the mixture Antifreeze agents**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

IPONE

La Meuniere

13480 Cabries

FRANCE

Further information obtainable from: info@ipone.fr**1.4 Emergency telephone number:**

+33 (0)4 42 94 05 65

Members of the public seeking specific information on poisons should contact:

In England and Wales : NHS 111 - dial 111

In Scotland : NHS 24 - dial 111

In Ireland : National Poisons Information Centre, 01 8092566 or 01 8379964.

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



Acute Tox. 4 H302 Harmful if swallowed.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms

GHS07



GHS08

Signal word Warning**Hazard-determining components of labelling:**

ethanediol

Hazard statements

H302 Harmful if swallowed.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

(Contd. on page 2)

GB

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Version number 1

Revision and application 27.10.2023

Trade name: RADIATOR LIQUID

		(Contd. of page 1)
P314	Get medical advice/attention if you feel unwell.	
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.	
· Emballages devant être pourvus d'une fermeture de sécurité pour les enfants.		
	Whatever their capacity, the packaging must be fitted with child-resistant closures and comply with the standards: Reclosable packaging:	
	Standard EN ISO 8317	
	Non-reclosable packaging: CEN standard EN 862	
· 2.3 Other hazards		
· Results of PBT and vPvB assessment		
· PBT: Not applicable.		
· vPvB: Not applicable.		

SECTION 3: Composition/information on ingredients· **3.2 Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.· **Dangerous components:**

CAS: 107-21-1	ethanediol	◆ STOT RE 2, H373; ! Acute Tox. 4, H302	50-70%
EINECS: 203-473-3			
Reg.nr.: 01-2119456816-28-XXXX			

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures**· **4.1 Description of first aid measures**· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.· **After skin contact:** Generally the product does not irritate the skin.· **After eye contact:** Rinse opened eye for several minutes under running water.· **After swallowing:** If symptoms persist consult doctor.· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures· **5.1 Extinguishing media**· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.· **For safety reasons unsuitable extinguishing agents:** Water with full jet· **5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

· **5.3 Advice for firefighters**· **Protective equipment:** Mouth respiratory protective device.**SECTION 6: Accidental release measures**· **6.1 Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

· **6.2 Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

(Contd. on page 3)

GB

Safety data sheet
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Version number 1

Revision and application 27.10.2023

Trade name: RADIATOR LIQUID

(Contd. of page 2)

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about fire - and explosion protection: Keep respiratory protective device available.**7.2 Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** None.**Recommended storage temperature:** Storage temperature : Room temperature**7.3 Specific end use(s)** No further relevant information available.**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****107-21-1 ethanediol**WEL Short-term value: 104** mg/m³, 40** ppmLong-term value: 10* 52** mg/m³, 20** ppm

Sk *particulate **vapour

Additional information: The lists valid during the making were used as basis.**8.2 Exposure controls****Appropriate engineering controls** No further data; see section 7.**Individual protection measures, such as personal protective equipment****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Hand protection

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 4)

GB

Safety data sheet
according to 1907/2006/EC, Article 31 - Regulation (EU) 2020/878

Printing date 27.10.2023

Version number 1

Revision and application 27.10.2023

Trade name: RADIATOR LIQUID

(Contd. of page 3)

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. (Refer to standard EN-374).

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye/face protection

Tightly sealed goggles

· Body protection: Protective workwear (EN-1149)**SECTION 9: Physical and chemical properties****· 9.1 Information on basic physical and chemical properties****· General Information****· Physical state**

Liquid

· Colour:

Blue

· Odour:

Characteristic

· Melting point/freezing point:

Not determined.

· Boiling point or initial boiling point and boiling range

197 °C (107-21-1 ethanediol)

· Flammability

Not applicable.

· Lower and upper explosion limit

3.2 Vol % (107-21-1 ethanediol)

· Lower:

53 Vol % (107-21-1 ethanediol)

· Upper:

111 °C (107-21-1 ethanediol)

· Flash point:

>398 °C

· Auto-ignition temperature:

>500 °C

· Decomposition temperature:

Mixture is non-polar/aprotic.

· pH

Not determined.

· Viscosity:

Not determined.

· Kinematic viscosity

Not determined.

· Dynamic:

Not determined.

· Solubility

Fully miscible.

· water:

Not determined.

· Partition coefficient n-octanol/water (log value)

0.1 hPa

· Vapour pressure at 20 °C:1.11 g/cm³**· Density and/or relative density**

Not determined.

· Density at 20 °C:

Not determined.

· Relative density

Not determined.

· Vapour density

Not determined.

· 9.2 Other information**· Appearance:**

Liquid

· Form:**· Important information on protection of health and environment, and on safety.**

Product is not selfigniting.

· Ignition temperature:

Product does not present an explosion hazard.

· Explosive properties:**· Solvent content:**

0.00 %

· VOC (EC)

40.0 %

· Oxygen content (%)**· Solids content:**

(Contd. on page 5)

GB

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Printing date 27.10.2023

Version number 1

Revision and application 27.10.2023

Trade name: RADIATOR LIQUID

(Contd. of page 4)

· SADT (°C)	
· Evaporation rate	Not determined.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- 10.1 Reactivity** No further relevant information available.
- 10.2 Chemical stability**
- Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions** No dangerous reactions known.
- 10.4 Conditions to avoid**
 - Sparks
 - Heat
 - Open flame
- 10.5 Incompatible materials:**
 - Oxidizing materials
 - Strong acids
 - Strong bases
- 10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- Acute toxicity** Harmful if swallowed.

· LD/LC50 values relevant for classification:

107-21-1 ethanediol

Oral	LD50	5,840 mg/kg (rat)
Dermal	LD50	9,530 mg/kg (rabbit)

- STOT-repeated exposure** May cause damage to organs through prolonged or repeated exposure.

· 11.2 Information on other hazards

· Endocrine disrupting properties

None of the ingredients is listed.

GB

(Contd. on page 6)

Safety data sheet
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Revision and application 27.10.2023

Trade name: RADIATOR LIQUID

(Contd. of page 5)

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN number or ID number	Void
· ADR, IMDG, IATA	Void
· 14.2 UN proper shipping name	Void
· ADR, IMDG, IATA	Void
· 14.3 Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	Void
· Class	Void
· 14.4 Packing group	Void
· ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· UN "Model Regulation":	Void

GB

(Contd. on page 7)

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Trade name: RADIATOR LIQUID

(Contd. of page 6)

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **National regulations:**
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H302 Harmful if swallowed.

H373 May cause damage to organs through prolonged or repeated exposure.

· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

GB