



SAFETY DATA SHEET

according to the REACH Regulation (EC)
1907/2006 amended by Regulation (EU)
2020/878

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Version: 1.0

Date of compilation: 25.06.2024.

RADANTIFREZ-HOAT-G13-GREEN-5LTR

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product identifier:

- Trade name: RADANTIFREZ-HOAT-G13-GREEN-5LTR
- Contains: ethylene glycol; 3,5,5-trimethylhexanoic acid.

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

Relevant identified uses: coolant - antifreeze.

Uses advised against: do not use this chemical for any purpose other than as described in the „Relevant identified uses“.

1.3. Details of the supplier of the safety data sheet

Supplier: Würth Gulf FZE
Address: **P.O.Box:17036, Jebel Ali Freezone,
South 6, Dubai, U.A.E**
Telephone number: +971 4 8809991
Email address for a competent person
responsible for the safety data sheet: info@wurth.ae

1.4. Emergency telephone number

Unified emergency number: 112

SECTION 2. HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 4; H302

Specific target organ toxicity — repeated exposure, Category 2; H373

Full text of H-statements: see Section 16.

Physical and chemical hazards: the chemical is not classified as hazardous based on its physical and chemical properties.

Human health hazards: harmful if swallowed. May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Environmental hazards: the chemical is not classified as hazardous to the environment.

2.2. Label elements

Product identifier (CLP):

RADANTIFREZ-HOAT-G13-GREEN-5LTR

- Trade name: RADANTIFREZ-HOAT-G13-GREEN-5LTR
- Contains: ethylene glycol; 3,5,5-trimethylhexanoic acid.

Hazard pictograms (CLP):

GHS07

GHS08

Signal word (CLP): WARNINGHazard statements (CLP):

H302: Harmful if swallowed.

H373: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Precautionary statements (CLP):

P102: Keep out of reach of children.

P264: Wash hands 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.

P501: Dispose of contents/container in accordance with national regulation.

Supplemental information (CLP): none.**2.3. Other hazards**

- The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

- Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

Other hazards which do not result in classification: none under normal conditions.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substances**

Not applicable.

3.2. Mixtures

Product identifier	Chemical name	Classification ¹	SCL, M-factor, ATE	Concentration, % (m/m)
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¹ According to Regulation (EC) No. 1272/2008 (CLP)

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Index: 603-027-00-1 CAS: 107-21-1 EC: 203-473-3 REACH: 01-2119456816-28	ethanediol; ethylene glycol	Acute Tox. 4; H302 STOT RE 2; H373	-	25 < C < 30
Index: - CAS: 3302-10-1 EC: 221-975-0 REACH: -	3,5,5- trimethylhexanoic acid	Acute Tox. 4; H302 Eye Irrit. 2; H319	-	0,5 < C < 1,5

Full text of H- and EUH-statements: see Section 16.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general: if exposed or concerned, get medical advice/attention. Never give anything by mouth to an unconscious person.

First-aid measures after inhalation: remove affected person to fresh air and keep warm, rest and comfortable for breathing. If the injured person is unconscious, place him in the recovery position, loosen tight clothing and control and maintain airway patency. If breathing is difficult or breathing stops, apply artificial respiration by trained person. In case of loss of consciousness, breathing disorders or persistent symptoms, provide immediate medical assistance.

First-aid measures after skin contact: remove contaminated clothing and shoes immediately. Wash the exposed parts of the skin with mild soap and rinse well with water. Consult a doctor if any symptoms appear.

First-aid measures after eye contact: rinse the eyes thoroughly with running water, remove contact lenses if present and easy to do. Continue rinsing. During flushing, keep the eyelids wide open. Consult a doctor if symptoms appear and persist. When rinsing, do not use a strong jet of water, as it can damage the cornea.

First-aid measures after ingestion: seek immediately medical advice/attention. If the person is conscious, give him to rinse mouth and drink a large amount of water.

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

The chemical is harmful to human health if swallowed. As a result of long-term or repeated oral exposure, damage to organs (kidneys) may occur just as nausea, stomach pain and vomiting. Eye contact may cause redness (erythema).

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



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Symptoms and effects may be delayed, and medical supervision of the exposed person is necessary for at least 48 hours from the moment of exposure. Show this safety data sheet to the medical staff. Symptomatic treatment.

SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: dry powder, water spray, carbon dioxide. For extinguishing larger fires, use water spray or alcohol-resistant foam.

Unsuitable extinguishing media: full water jet.

5.2. Special hazards arising from the substance or mixture

The chemical is not classified as flammable, but may burn. Combustion products of this chemical must always be categorized as respiratory poisons. In the event of a fire, carbon dioxide, carbon monoxide and other toxic gases dangerous to human health can be released, and it is necessary to prevent their inhalation.

5.3. Advice for firefighters

Follow the procedures applicable to extinguishing fires involving chemicals. Extinguishing methods should be adapted to environmental conditions.

In the event of a large fire, remove all persons not involved in the extinguishing process. If possible, cool containers exposed to fire or high temperature using water spray from a safe distance and remove them from the endangered zone. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water. Waste water and residues after extinguishing must be removed and disposed of in accordance with applicable legal regulations.

Special protective equipment for firefighters: full fireproof protective clothing and self-contained breathing apparatus (SCBA).

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: evacuate unnecessary personnel. Only qualified personnel equipped with suitable protective equipment may intervene.

For emergency responders: use individual protection measures (see Section 8). Avoid contact with eyes, skin and clothing. Do not breathe vapors and mists. If the spill occurred indoors, ensure adequate ventilation. Remove all sources of ignition, do not smoke and extinguish fire if it occurs (see Section 5).

6.2. Environmental precautions

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Do not allow to enter into surface water or drains. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Advice on how to contain a spill: if safe and possible, limit further spillage of the chemical by placing barriers and dikes around the spill area.

Advice on how to clean-up a spill: spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

Appropriate containment technique: not available.

Other information relating to spills and releases: ensure good ventilation of the area where the chemical was spilled.

6.4. Reference to other sections

Personal protective equipment: see Section 8.

Disposal considerations: see Section 13.

SECTION 7. HANDLING AND STORAGE**7.1. Precautions for safe handling**

Precautions for safe handling: prevent the formation and inhalation of aerosols. Provide effective ventilation. Avoid contact with eyes, skin and clothing. Keep containers tightly closed when not in use.

Hygiene measures: observe safety measures at work, fire prevention and general hygiene measures. Do not eat, drink or smoke during handling. Before taking a break and after finishing work, wash your hands thoroughly. Remove contaminated clothing and protective equipment before entering the food area. Wash soiled clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Store the chemical in the original, well-closed and adequately marked container. Store in a well-ventilated area at temperatures below 40°C, away from incompatible materials (see Section 10). Protect from heat, flame, extreme temperatures and direct sunlight. When not in use, protect from moisture and water because the mixture is hygroscopic (absorbs and retains moisture and water). Keep away from food, drink and animal feed. Containers that have been opened must be carefully closed and kept in an upright position to avoid chemical leakage.

7.3. Specific end use(s)

Identified uses are listed in Subsection 1.2.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1. Control parameters

Occupational exposure limit values (Workplace Exposure Limits):

Product identifier	Chemical name	Indicative occupational exposure limit values ²				Notation
		8 h		15 min		
		mg/m ³	ppm	mg/m ³	ppm	
Index: 603-027-00-1 CAS: 107-21-1 EC: 203-473-3 REACH: 01-2119456816-28	ethanediol; ethylene glycol	52	20	104	40	Skin

DNEL
ethanediol; ethylene glycol (CAS: 107-21-1)

Dermal	Long term - systemic effects	53 mg/kg bw/day (general population) 106 mg/kg bw/day (workers)
Inhalation	Long term - local effects	7 mg/m ³ (general population) 35 mg/m ³ (workers)

PNEC
ethanediol; ethylene glycol (CAS: 107-21-1)

PNEC water	10 mg/l (freshwater) 1 mg/l (marine water) 10 mg/l (intermittent release)
PNEC sediment	37 mg/kg dwt (freshwater sediment) 3,7 mg/kg dwt (marine water sediment)
PNEC soil	1,53 mg/kg
PNEC STP	199,5 mg/l

² COMMISSION DIRECTIVE 2000/39/EC - a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

RADANTIFREZ-HOAT-G13-GREEN-5LTR**8.2. Exposure controls**

Appropriate engineering controls: provide local exhaust or general ventilation in rooms where the chemical is stored and used. Technical control measures should always be given priority over personal protection measures.

Individual protection measures: wash hands, forearms and face thoroughly after handling chemicals, before eating, drinking, smoking and going to the toilet. Wash contaminated clothing before reuse.

Personal protective equipment:

- Eye/face protection: use safety glasses that fit tightly to the face, as protection against splashing liquid chemicals into the eyes and in cases of prolonged exposure to the chemical (EN 166).
- Skin protection:
 - *Hand protection:* wear protective butyl rubber gloves, material thickness 0.6 - 0.8 mm (EN 374). In the event of a risk of dermal contact with the chemical, sufficient protection is provided by wearing suitable protective gloves that have been tested in accordance with EN 374. Before use, check the suitability of the protective gloves for specific workplaces and tasks to be performed (mechanical resistance, product compatibility and antistatic properties). Follow the manufacturer's instructions and information regarding the use, storage, maintenance and replacement of protective gloves. When physically damaged or worn, protective gloves must be replaced immediately.
 - *Body protection:* wear a protective clothing made of chemical-resistant materials. If there is a risk of slipping in the work area, wear protective footwear.
- Respiratory protection: in case of increased concentration of gas / mist / aerosols in the working area, above the permitted exposure limits or in case of inadequate ventilation, use an approved respirator equipped with a suitable filter (EN 14387, EN 141). If exposure levels cannot be determined or estimated with adequate confidence, or if, for any reason, oxygen deprivation is possible, only self-contained breathing apparatus should be used. The selection of means for the protection of respiratory organs should be made on the basis of specific activities, levels and expected duration of exposure.
- Thermal hazards: no data available.

Environmental exposure controls: do not allow the chemical to enter the environment by applying appropriate control measures.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	various

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Odour:	no data available
Melting point/freezing point:	freezing point: max -18°C (ASTM D1177)
Boiling point or initial boiling point and boiling range:	boiling point: 105°C (ASTM D1120)
Flammability:	no data available
Lower and upper explosion limit:	no data available
Flash point:	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	no data available
pH:	7,5 - 9 (ASTM D1287)
Kinematic viscosity:	no data available
Solubility:	no data available
Partition coefficient n-octanol/water (log value):	no data available
Vapour pressure:	no data available
Density and/or relative density:	1,05 g/cm ³ at 20°C (ASTM D1122)
Relative vapour density:	no data available
Particle characteristics:	no data available

9.2. Other information

- Information with regard to physical hazard classes: no data available

- Other safety characteristics:

Reserve alkalinity: minimum 5 ml (ASTM D1121)

SECTION 10. STABILITY AND REACTIVITY**10.1. Reactivity**

The chemical is stable under recommended storage and handling conditions.

10.2. Chemical stability

The chemical is stable under recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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Avoid exposure to high temperatures, open flames, sparks and other sources of ignition, as well as storage and mixing with incompatible materials. When not in use, prevent contact with moisture and water, due to the hygroscopic properties of the mixture.

10.5. Incompatible materials

Strong oxidizing agents, acids and bases.

10.6. Hazardous decomposition products

With compliance with the recommended conditions for handling and storage of the chemical, its decomposition and the formation of dangerous products do not occur.

SECTION 11. TOXICOLOGICAL INFORMATION**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Acute toxicity: the chemical is classified in Category 4 of this hazard class, for the oral route of exposure. Harmful if swallowed. Available data on the acute toxicity of the ingredients of the mixture are listed in the following table.

Product identifier	Chemical name	Acute toxicity
Index: 603-027-00-1 CAS: 107-21-1 EC: 203-473-3 REACH: 01-2119456816-28	ethanediol; ethylene glycol	LD ₅₀ : 7712 mg/kg bw (rat, oral) LD ₅₀ : > 3500 mg/kg bw (mouse, dermal) LC ₅₀ /6h: > 2,5 mg/l (rat, inhalation)
Index: - CAS: 3302-10-1 EC: 221-975-0 REACH: -	3,5,5-trimethylhexanoic acid	LD ₅₀ : 1160 mg/kg bw (rat, oral)

Skin corrosion/irritation: based on available data, the classification criteria are not met.

Serious eye damage/irritation: based on available data, the classification criteria are not met.

Respiratory or skin sensitisation: based on available data, the classification criteria are not met.

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

Carcinogenicity: based on available data, the classification criteria are not met.

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

STOT-single exposure: based on available data, the classification criteria are not met.



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STOT-repeated exposure: the chemical is classified in Category 2 of this hazard class. May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

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

Information on likely routes of exposure: ingestion (swallowing), inhalation, skin/eye exposure.

Symptoms related to the physical, chemical and toxicological characteristics: if known, symptoms of exposure are listed in Subsection 4.2.

Delayed and immediate effects as well as chronic effects from short and long-term exposure: if known, the effects of exposure are listed in Subsection 4.2

Interactive effects: no data available.

Absence of specific data: no data available.

Mixtures: no data available.

Mixture versus substance information: no data available.

11.2. Information on other hazards

Endocrine disrupting properties: the mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Other information: no data available.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

Based on the available data, the classification criteria are not met. The chemical is not classified as dangerous to the environment.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

RADANTIFREZ-HOAT-G13-GREEN-5LTR**12.6. Endocrine disrupting properties**

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

No data available.

SECTION 13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Waste treatment methods: waste generation should be avoided or minimized whenever possible. For further disposal and treatment of contaminated packaging and unused chemicals, contact an authorized operator. All waste disposal procedures must be in accordance with the requirements of environmental protection and the requirements of applicable regulations.

Avoid discharge into the sewage system.

Waste treatment of contaminated packaging: the treatment and disposal of contaminated packaging must comply with the regulations in force.

Regulations related to waste management:

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended.

SECTION 14. TRANSPORT INFORMATION

The chemical is not classified as dangerous according to the current regulations governing the transport of dangerous goods by road (ADR), rail (RID), sea (IMDG), air (ICAO TI) and inland waterways (ADN).

14.1. UN number or ID number

Not applicable.

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



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Mixture is environmentally hazardous (ADR / RID / ADN): NO.

Marine pollutant (IMDG): NO.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th 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, as amended.

15.2. Chemical safety assessment

Chemical safety assessment has not been carried out.

SECTION 16. OTHER INFORMATION

Indication of changes: not applicable; first version (V1.0)

Abbreviations and acronyms:

CAS: Chemical Abstracts Service

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CLP: Classification, labeling and packaging of substances and mixture

SCL: Specific Concentration Limit

ATE: Acute Toxicity Estimate

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

Eye Irrit. 2: Eye irritation, Category 2

DNEL: Derived-No Effect Level



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PNEC: Predicted **No-Effect** Concentration

STP: Sewage Treatment Plant

bw: bodyweight

dwt: dry weight

LD₅₀: Median lethal dose

LC₅₀: Median lethal concentration

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Dangerous Goods

ICAO-TI: International Civil Aviation Organization - Technical Instruction

Key literature references and sources for data:

Safety data sheets of the components involved in the formulation of the chemical BELL ANTIFREEZE G13 -18

Data on the physical and chemical properties of the chemical BELL ANTIFREEZE G13 -18.

www.echa.europa.eu

Methods used for the purpose of classification:

Acute toxicity: CLP additivity formula.

STOT RE 2: CLP calculation method.

Full text of H-statements:

H302: Harmful if swallowed.

H319: Causes serious eye irritation.

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

Full text of EUH-statements: not applicable.

Advice on any training appropriate for workers: taking into account the information from this safety sheet as well as all other relevant data, define and implement appropriate training for employees for each workplace.

The information contained in this safety data sheet is based on our knowledge and experience as of the date of the last version and describes the chemical from a safety perspective. As the use of the chemical is not under our direct control, it is the responsibility of the user to comply with applicable laws and measures related to hygiene and safety.