

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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

1.1. Product identifier

Trade name/designation:

RAVENOL DCT GT-R Fluid

Article No.:

1211129

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

Use of the substance/mixture:

Lubricant

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

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Ravensberger Schmierstoffvertrieb GmbH

Jöllenbecker Str. 2

33824 Werther

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Telephone: +49 5203 9719 0

Telefax: +49 5203 9719 40

E-mail: kontakt@ravenol.de

Website: www.ravenol.de

E-mail (competent person): technik@ravenol.de

* **1.4. Emergency telephone number**

Abt. Technik (Produktsicherheit), 24h: +49 700 24 112 112 (Contract ID: RAV) , +49 5203 9719 0 (Mo-Do 7.30 Uhr - 16.30 Uhr, Fr 7.30 Uhr - 13.15 Uhr) (Only available during office hours.)

SECTION 2: Hazards identification

* **2.1. Classification of the substance or mixture**

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Hazardous to the aquatic environment (Aquatic Chronic 3)	H412: Harmful to aquatic life with long lasting effects.	

* **2.2. Label elements**

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

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Hazard statements for environmental hazards

H412 Harmful to aquatic life with long lasting effects.

Supplemental Hazard information (EU)

EUH208 Contains Alkyl Methacrylate. May produce an allergic reaction.

Precautionary statements Prevention

P273 Avoid release to the environment.

Precautionary statements Disposal

P501 Dispose of contents/container to an appropriate recycling or disposal facility.

2.3. Other hazards

No data available



SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
REACH No.: 01-2119474889-13	ow viscosity base oil Asp. Tox. 1 H304	20 - < 50 Wt %
REACH No.: 01-2119452498-28	Alkyl Methacrylate Flam. Liq. 2, STOT SE 3, Skin Irrit. 2, Skin Sens. 1B H225-H315-H317-H335	0.1 - < 1 Wt %
CAS No.: 1218787-32-6 EC No.: 620-540-6 REACH No.: 01-2119510877-33	Alkylamin Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1, Eye Dam. 1, Skin Corr. 1C H302-H314-H318-H400-H410 M-factor (acute): 10 M-factor (chronic): 1	0.1 - < 0.25 Wt %
EC No.: 939-485-7 REACH No.: 01-2119974116-35	prim. alkanolamin ether Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1, Eye Dam. 1, Skin Corr. 1B H302-H314-H318-H400-H410 M-factor (acute): 100 M-factor (chronic): 1	0.01 - < 0.1 Wt %

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Provide fresh air. Consult a doctor immediately.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Consult a doctor immediately.

After eye contact:

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion:

Rinse mouth thoroughly with water. Do NOT induce vomiting. Consult a doctor immediately.

Self-protection of the first aider:

Use personal protection equipment. No direct artificial respiration to be given by first aider.

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

No data available

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

Treat symptomatically. Observe risk of aspiration if vomiting occurs.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Co-ordinate fire-fighting measures to the fire surroundings.

Carbon dioxide (CO₂)

Extinguishing powder

alcohol resistant foam

Use water spray jet to protect personnel and to cool endangered containers.

Unsuitable extinguishing media:

Full water jet



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* **5.2. Special hazards arising from the substance or mixture**

During heating or in case of fire, toxic gases is possible.
The formation of combustible vapours is possible at temperatures above: Flash point
When hot, product develops flammable vapours.

Hazardous combustion products:

Carbon monoxide, Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Gases/vapours, toxic
During heating or in case of fire, toxic gases is possible.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Protective clothing.

5.4. Additional information

Do not inhale explosion and combustion gases. Move undamaged containers from immediate hazard area if it can be done safely. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

* **6.1. Personal precautions, protective equipment and emergency procedures**

6.1.1. For non-emergency personnel

Personal precautions:

Use personal protection equipment. Special danger of slipping by leaking/spilling product. Remove persons to safety.

Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

Emergency procedures:

Eliminate all ignition sources if safe to do so. Remove persons to safety. Provide adequate ventilation.

6.1.2. For emergency responders

Personal protection equipment:

Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

For containment:

Suitable material for taking up: Sand, Kieselguhr, Universal binder, Chemical binding agents, containing acids
Prevent spread over a wide area (e.g. by containment or oil barriers).

For cleaning up:

Remove from the water surface (e.g. skimming, sucking). Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Other information:

Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8

* **6.5. Additional information**

Clear spills immediately. Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

* **7.1. Precautions for safe handling**

Protective measures

Advices on safe handling:

Wear personal protection equipment (refer to section 8).

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Do not put any product-impregnated cleaning rags into your trouser pockets. Clear spills immediately. Use appropriate container to avoid environmental contamination.

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Fire prevent measures:

No special fire protection measures are necessary.

Environmental precautions:

Shafts and sewers must be protected from entry of the product.

Advices on general occupational hygiene

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

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

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels:

Suitable container/equipment material: Floors should be impervious, resistant to liquids and easy to clean. Shafts and sewers must be protected from entry of the product.

Keep/Store only in original container.

Hints on storage assembly:

not required

Storage class: 10 – Combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions:

Store in a cool dry place. Keep away from heat.

7.3. Specific end use(s)

Recommendation:

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available

* **8.2. Exposure controls**

8.2.1. Appropriate engineering controls

See section 7. No additional measures necessary.

8.2.2. Personal protection equipment



Eye/face protection:

During transfer: Eye glasses with side protection

Wear eye/face protection. DIN EN 166

Skin protection:

Hand protection

Suitable material: NBR (Nitrile rubber), PVC (polyvinyl chloride), CR (polychloroprene, chloroprene rubber)

Thickness of the glove material: $\geq 0,4$ mm

Breakthrough time (maximum wearing time) 480 min

Breakthrough times and swelling properties of the material must be taken into consideration.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Tested protective gloves must be worn: EN ISO 374

Suitable protective clothing: Protective clothing

Respiratory protection:

Usually no personal respiratory protection necessary.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

* **8.3. Additional information**

Mineral oil mist limits:

OSHA PEL - value $5 \text{ mg} / \text{m}^3$, ACGIH STEL - value of $10 \text{ mg} / \text{m}^3$ (bei mineralischen Ölen)



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SECTION 9: Physical and chemical properties

* 9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: blue

Odour: characteristic

Safety relevant basis data

parameter		at °C	Method	Remark
pH	not determined			
Melting point	not determined			
Freezing point	not determined			
Initial boiling point and boiling range	not determined			
Decomposition temperature	not determined			
Flash point	220 °C			
Evaporation rate	not determined			
Auto-ignition temperature	not determined			
Upper/lower flammability or explosive limits	not determined			
Vapour pressure	not determined			
Vapour density	not determined			
Density	841 kg/m ³	20 °C		
Bulk density	not determined			
Water solubility	not determined			
Partition coefficient: n-octanol/water	not determined			
Dynamic viscosity	not determined			
Kinematic viscosity	31 mm ² /s	40 °C		

9.2. Other information

Immiscible

SECTION 10: Stability and reactivity

* 10.1. Reactivity

No known hazardous reactions. Risk of explosion if heated under confinement.

* 10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

* 10.4. Conditions to avoid

To avoid thermal decomposition do not overheat.

10.5. Incompatible materials

Materials to avoid: Acid, Oxidizing agent, Reducing agent

10.6. Hazardous decomposition products

Hazardous combustion products: Carbon dioxide Carbon monoxide Nitrogen oxides (NO_x)

Further information

No information available.



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SECTION 11: Toxicological information

* 11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
	ow viscosity base oil	LD₅₀ oral: >5,000 mg/kg (Rat) OECD 401 LD₅₀ dermal: >5,000 mg/kg
121878 7-32-6	Alkylamin	LD₅₀ oral: 1,350 mg/kg (Rat)

Acute oral toxicity:

Pamatojoties uz pieejamajiem datiem, klasifikācijas kritēriji nav izpildīti.

Acute dermal toxicity:

Pamatojoties uz pieejamajiem datiem, klasifikācijas kritēriji nav izpildīti.

Acute inhalation toxicity:

Pamatojoties uz pieejamajiem datiem, klasifikācijas kritēriji nav izpildīti.

Skin corrosion/irritation:

Pamatojoties uz pieejamajiem datiem, klasifikācijas kritēriji nav izpildīti.

Frequently or prolonged contact with skin may cause dermal irritation.

Serious eye damage/irritation:

Pamatojoties uz pieejamajiem datiem, klasifikācijas kritēriji nav izpildīti.

Respiratory or skin sensitisation:

Pamatojoties uz pieejamajiem datiem, klasifikācijas kritēriji nav izpildīti.

Germ cell mutagenicity:

No indications of human germ cell mutagenicity exist.

Carcinogenicity:

Evidence for human carcinogenicity.

Reproductive toxicity:

No indications of human reproductive toxicity exist.

STOT-single exposure:

Pamatojoties uz pieejamajiem datiem, klasifikācijas kritēriji nav izpildīti.

STOT-repeated exposure:

Pamatojoties uz pieejamajiem datiem, klasifikācijas kritēriji nav izpildīti.

Aspiration hazard:

Observe risk of aspiration if vomiting occurs.

SECTION 12: Ecological information

* 12.1. Toxicity

CAS No.	Substance name	Toxicological information
	ow viscosity base oil	LC₅₀: >100 mg/l 4 d LC₅₀: >100 mg/l 2 d LC₅₀: >100 mg/l 3 d NOEC: >1,000 mg/l 12 d NOEC: 10 mg/l 21 d (Daphnia pulex (water flea)) OECD 211 NOEC: >100 mg/l 3 d
121878 7-32-6	Alkylamin	LC₅₀: 0.1 mg/l 4 d (Acute (short-term) fish toxicity) OECD 203 EC₅₀: 0.043 mg/l 2 d (Daphnia magna (Big water flea)) OECD 202 EC₅₀: 0.0538 mg/l 3 d (Chronic (long-term) algae toxicity) OECD 201 NOEC: 0.0156 mg/l 3 d (Chronic (long-term) algae toxicity)

Aquatic toxicity:

The product has not been tested.



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12.2. Persistence and degradability

CAS No.	Substance name	Biodegradation	Remark
121878 7-32-6	Alkylamin	Yes, rapidly	63% (28d, OECD 301D)

Abiotic degradation:

The product has not been tested.

12.3. Bioaccumulative potential

Bioconcentration factor (BCF):

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	ow viscosity base oil	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.
121878 7-32-6	Alkylamin	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of waste according to applicable legislation.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code packaging:

Remark:

Dispose of waste according to applicable legislation.

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Non-contaminated packages may be recycled.

13.2. Additional information

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	
14.1. UN-No.			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	
14.3. Transport hazard class(es)			
not relevant			



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Land transport (ADR/ RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	
14.4. Packing group			
not relevant			
14.5. Environmental hazards			
not relevant			
14.6. Special precautions for user			
not relevant			

- * **14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
 No transport as bulk according to IBC Code.

SECTION 15: Regulatory information

- * **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
- 15.1.1. EU legislation**
- Other regulations (EU):**
 Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: This product is not assigned to a hazard category.
- 15.1.2. National regulations**
-  **[DE] National regulations**
- Störfallverordnung**
for substances contained in the product:
 This product is not assigned to a hazard category.
- Technische Anleitung Luft (TA-Luft)**
- Remark:**
 To follow: 5.2.5.
- Water hazard class (WGK)**
- WGK:**
 2 - deutlich wassergefährdend
- Source:**
 Self-classification (mixture; calculation rule).
 Identification number 436
- Technische Regeln für Gefahrstoffe**
 TRGS 510
 Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.
- Berufsgenossenschaftliche Vorschriften (BGV)**
 Berufsgenossenschaftliche Informationen (BGI) 868
 Berufsgenossenschaftliche Regeln (BGR) 189, 190, 192, 195
- Other regulations, restrictions and prohibition regulations**
 Altöl-Verordnung (AltölV)
-  **[DK] National regulations**
- Other regulations, restrictions and prohibition regulations**
 Lister over stoffer og processer, der anses for at være kræftfremkaldende
-  **[FR] National regulations**
- Other regulations, restrictions and prohibition regulations**
 Tableaux de maladies professionnelles
 Nomenclature des installations classées pour la protection de l'environnement

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 **[NL] National regulations**

Other regulations, restrictions and prohibition regulations

Lijst van kankerverwekkende, mutagene, en voor de voortplanting giftige stoffen SZW
Algemeene beoordelingsmethodiek Water (ABM)
Nederlandse emissierichtlijn (NeR)

 **[CH] National regulations**

Other regulations, restrictions and prohibition regulations

Mengenschwelle (Schweiz - StFV)
Gefahrencode
Brandverhütung, BVD (Schweiz)

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

* **16.1. Indication of changes**

1.3.	Details of the supplier of the safety data sheet
1.4.	Emergency telephone number
2.1.	Classification of the substance or mixture
2.2.	Label elements
3.2.	Mixtures
4.1.	Description of first aid measures
4.3.	Indication of any immediate medical attention and special treatment needed
5.1.	Extinguishing media
5.2.	Special hazards arising from the substance or mixture
6.1.	Personal precautions, protective equipment and emergency procedures
6.3.	Methods and material for containment and cleaning up
6.5.	Additional information
7.1.	Precautions for safe handling
7.2.	Conditions for safe storage, including any incompatibilities
8.2.	Exposure controls
8.3.	Additional information
9.1.	Information on basic physical and chemical properties
10.1.	Reactivity
10.2.	Chemical stability
10.4.	Conditions to avoid
11.1.	Information on toxicological effects
12.1.	Toxicity
12.2.	Persistence and degradability
12.3.	Bioaccumulative potential
12.4.	Mobility in soil
12.5.	Results of PBT and vPvB assessment
13.2.	Additional information
14.1.	UN number
14.2.	UN proper shipping name
14.7.	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture
16.1.	Indication of changes
16.5.	Relevant R-, H- and EUH-phrases (Number and full text)

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).



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16.3. Key literature references and sources for data

67/548/EEC - Dangerous Substances Directive
 1999/45/EEC - Dangerous Preparations Directive
 EC 1907/2006 - REACH Regulation
 1272/2008 EC - Regulation on classification, labeling and packaging of substances and mixtures, and amending Directives 67/548/EEC and 1999/45/EC and Regulation (EC) No 1907/2006
 Regulation (EC) No 1907/2006 (REACH), Annex II
 European Chemicals Agency (ECHA), C & L classification and labeling inventory
 European Chemicals Agency (ECHA), ECHA CHEM Registered substances
 OECD The Global Portal to Information on Chemical Substances (ChemPortal)
 Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA): GESTIS substance database and International limit values for chemical substances
 Federal Environment Agency, Section IV 2.4: Documentation and Information Centre substances hazardous to water Rigoletto (catalog substances hazardous to water)

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Hazardous to the aquatic environment (Aquatic Chronic 3)	H412: Harmful to aquatic life with long lasting effects.	

* 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

16.6. Training advice

No data available

16.7. Additional information

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 new made-up material.

* Data changed compared with the previous version