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 CVTF NS2/J1 Fluid

Article No.:

1211114

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
D

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 (Company ID: RAV) (outside USA/Canada) 011 49 700 24 112 112 (Company ID: RAV) (inside USA/Canada), +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]:

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

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: -

Supplemental Hazard information (EU)	
EUH210	Safety data sheet available on request.

Precautionary statements: -

2.3. Other hazards

No data available

SECTION 3: Composition / information on ingredients

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3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concen-tration
CAS No.: 96-33-3 **EC No.:** 202-500-6	**methyl acrylate** Eye Irrit. 2 H319	2 – < 5 Wt %
CAS No.: 124-28-7 **EC No.:** 204-694-8	**N,N-Dimethyl-N-octadecylamine** Skin Corr. 1B, Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1 H302-H314-H400-H410	0 – < 0.2 Wt %
CAS No.: 95-38-5 **EC No.:** 202-414-9	**2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol** Skin Corr. 1C, Acute Tox. 4, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1 **Danger** H302-H314-H373-H400-H410	0 – < 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 known symptoms to date.

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

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

Hazardous combustion products:
Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx),
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:
Remove persons to safety.

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

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7.1. Precautions for safe handling

Protective measures
Advices on safe handling:
Personal protection equipment: see 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.

Fire prevent measures:
No special fire protection measures are necessary.

Environmental precautions:
See section 8.

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

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8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	**Substance name**	**① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark**
TRGS 900 (DE)	methyl acrylate CAS No.: 96-33-3	① 2 ppm (7.1 mg/m³) ② 4 ppm (14.2 mg/m³) ⑤ (kann über die Haut aufgenommen werden)
IOELV (EU)	methyl acrylate CAS No.: 96-33-3	① 5 ppm (18 mg/m³) ② 10 ppm (36 mg/m³)
TRGS 900 (DE)	Hydrocarbons, C10, Aromatics, >1% Naphthalene CAS No.: 64742-94-5	① 50 mg/m³ ② 100 mg/m³ ⑤ (C9-C14 Aromaten)
TRGS 900 (DE)	naphthalene CAS No.: 91-20-3	① 0.1 ppm (0.5 mg/m³) ② 0.1 ppm (0.5 mg/m³) ⑤ (einatembare Fraktion; kann über die Haut aufgenommen werden)
IOELV (EU)	naphthalene CAS No.: 91-20-3	① 10 ppm (50 mg/m³)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	**DNEL value**	**① DNEL type ② Exposure route**
methyl acrylate CAS No.: 96-33-3	18 mg/m³	① DNEL worker ② DNEL acute inhalative (local)
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol CAS No.: 95-38-5	0.46 mg/m³	① DNEL worker ② DNEL long-term inhalative (systemic)
Hydrocarbons, C10, Aromatics, >1% Naphthalene CAS No.: 64742-94-5	151 mg/m³	① DNEL worker ② DNEL long-term inhalative (local)
naphthalene CAS No.: 91-20-3	25 mg/m³	① DNEL worker ② DNEL acute inhalative (local)
naphthalene CAS No.: 91-20-3	25 mg/m³	① DNEL worker ② DNEL long-term inhalative (systemic)

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: >= 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: DIN EN 374

Suitable protective clothing: Protective clothing:

Respiratory protection:

Usually no personal respirative 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 mg / m³, ACGIH STEL - value of 10 mg / m³

SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid **Colour:** green
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 (°C):	*not determined*			
Flash point	218 °C			
Evaporation rate	*not determined*			
Ignition temperature in °C	*not determined*			
Upper/lower flammability or explosive limits	*not determined*			
Vapour pressure	*not determined*			
Vapour density	*not determined*			
Relative density	838 kg/m³	20 °C		
Bulk density	*not determined*			
Water solubility	The study does not need to be conducted because the substance is known to be insoluble in water.			

parameter		at °C	Method	Remark
Partition coefficient: n-octanol/ water	*not determined*			
Dynamic viscosity	*not determined*			
Kinematic viscosity	34.5 mm²/s	40 °C		

9.2. Other information
No data available

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, Oxidising agent, Reducing agent

10.6. Hazardous decomposition products
Hazardous combustion products: Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx)

SECTION 11: Toxicological information

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11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
124-28-7	N,N-Dimethyl-N-octadecylamine	**LD_{50} oral:** 1,000 – 2,118 mg/kg
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	**LD_{50} oral:** 1,265 mg/kg (Rat) **LD_{50} dermal:** >2,000 mg/kg (Rabbit)
91-20-3	naphthalene	**LD_{50} oral:** 490 mg/kg (Rat) **LD_{50} dermal:** 16,000 mg/kg (Rat)

Acute oral toxicity:
Pamatojoties uz pieejamajiem datiem, klasifikācijas kritēriji nav izpildīti.

Acute dermal toxicity:
No information available for acute dermal and inhalative toxicity.

Acute inhalation toxicity:
No information available for acute dermal and inhalative toxicity.

Skin corrosion/irritation:
No irritant effect.
Frequently or prolonged contact with skin may cause dermal irritation.

Serious eye damage/irritation:
No irritant effect.

Respiratory or skin sensitisation:
No sensitizing effects known.

Germ cell mutagenicity:
No indications of human germ cell mutagenicity exist.

Carcinogenicity:
No indication of 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
124-28-7	N,N-Dimethyl-N-octadecylamine	**LC_{50}:** 0.18 – 1.13 mg/l 4 d **EC_{50}:** 0.058 – 0.926 mg/l 2 d **EC_{50}:** 0.0099 – 0.0268 mg/l 3 d
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	**LC_{50}:** 0.3 mg/l 4 d **ErC_{50}:** 0.2989 mg/l 3 d (Desmodesmus subspicatus) **EC_{50}:** 0.136 mg/l 2 d (Daphnia magna (Big water flea))
64742-94-5	Hydrocarbons, C10, Aromatics, >1% Naphthalene	**LC_{50}:** 2 – 5 mg/l 4 d **ErC_{50}:** 1 – 3 mg/l 3 d **EC_{50}:** 3 – 10 mg/l 2 d (Daphnia magna (Big water flea))
91-20-3	naphthalene	**LC_{50}:** 0.213 mg/l 4 d (Oncorhynchus mykiss (Rainbow trout)) **EC_{50}:** 1.6 mg/l 2 d (Daphnia magna (Big water flea))

Assessment/classification:
The product has not been tested.
Additional ecotoxicological information:
Do not allow uncontrolled discharge of product into the environment.

12.2. Persistence and degradability

Biodegradation:
Not readily biodegradable (according to OECD criteria)

* ### 12.3. Bioaccumulative potential

CAS No.	Substance name	Log K_{OC}	Bioconcentration factor (BCF)
124-28-7	N,N-Dimethyl-N-octadecylamine	1.3	
91-20-3	naphthalene	3.35	

Accumulation / Evaluation:
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
124-28-7	N,N-Dimethyl-N-octadecylamine	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.
64742-94-5	Hydrocarbons, C10, Aromatics, >1% Naphthalene	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.
91-20-3	naphthalene	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.

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.

14.1. UN-No.
not relevant
14.2. UN proper shipping name
not relevant
14.3. Transport hazard class(es)
not relevant
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

not applicable

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Other regulations (EU):
Safety data sheet available for professional user on request.

15.1.2. National regulations

[DE] National regulations

Störfallverordnung

for substances contained in the product:
E2 Hazardous to the aquatic environment in Category Chronic 2

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)

15.2. Chemical Safety Assessment

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

15.3. Additional information

No data available

SECTION 16: Other information

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16.1. Indication of changes

3.2.	Mixtures
7.1.	Precautions for safe handling
8.1.	Control parameters
9.1.	Information on basic physical and chemical properties
11.1.	Information on toxicological effects
12.1.	Toxicity
12.3.	Bioaccumulative potential
12.5.	Results of PBT and vPvB assessment
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).

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]:

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

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

Hazard statements	
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure. (...)
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