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 Petrol Octane Booster

Article No.:
1390209

UFI:
FVC7-GV1T-K6Q6-C7HE

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

Use of the substance/mixture:
Fuel additive

1.3. Details of the supplier of the safety data sheet

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

Ravensberger Schmierstoffvertrieb GmbH
Produktsicherheit
Jöllenbecker Str. 2
33824 Werther
Germany
Telephone: +49 5203 9719 0
Telefax: +49 5203 9719 40
E-mail: kontakt@ravenol.de
Website: www.ravenol.de

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

1.4. Emergency telephone number

24 hr. emergency phone number, 24h: +49 700 24 112 112 (Contract ID: RAV) / +1 872 5888271 (Contract ID: RAV)

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
Aspiration hazard *(Asp. Tox. 1)*	H304: May be fatal if swallowed and enters airways.	Calculation method.
Carcinogenicity *(Carc. 2)*	H351: Suspected of causing cancer.	Calculation method.
Reproductive toxicity *(Repr. 1B)*	H360FD: May damage fertility. May damage the unborn child.	Calculation method.
Hazardous to the aquatic environment *(Aquatic Chronic 2)*	H411: Toxic to aquatic life with long lasting effects.	Calculation method.

2.2. Label elements

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

Hazard pictograms:

GHS08
Health hazard

GHS09
Environment

Signal word: Danger

Hazard components for labelling:
naphthalene; ferrocene; Solvent naphtha (petroleum), heavy arom.; Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%)

Hazard statements for health hazards	
H304	May be fatal if swallowed and enters airways.
H351	Suspected of causing cancer.
H360FD	May damage fertility. May damage the unborn child.

Hazard statements for environmental hazards	
H411	Toxic to aquatic life with long lasting effects.

Supplemental hazard information: none

Precautionary statements	
P102	Keep out of reach of children.

Precautionary statements Prevention	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection/face protection.

Precautionary statements Response	
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/Emergency telephone number.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P331	Do NOT induce vomiting.
P391	Collect spillage.

Precautionary statements Storage	
P405	Store locked up.

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

2.3. Other hazards

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

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**
EC No.: 920-360-0 REACH No.: 01-2119448343-41-0000	**Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%)** Asp. Tox. 1 (H304) Danger	50 – < 85 weight-%
CAS No.: 64742-94-5 EC No.: 265-198-5 REACH No.: 01-2119451151-53	**Solvent naphtha (petroleum), heavy arom.** Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), STOT SE 3 (H336) Danger	10 – < 20 weight-%
EC No.: 926-141-6 Index No.: 649-422-00-2 REACH No.: 01-2119456620-43	**Hydrocarbons, C11-C14, n-alkanes, iso-alkanes, cyclenes, <2% aromatics** Asp. Tox. 1 (H304) Danger	2 – < 5 weight-%
CAS No.: 91-20-3 EC No.: 202-049-5	**naphthalene** Acute Tox. 4 (H302), Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Carc. 2 (H351) Warning	0 – < 2 weight-%
CAS No.: 102-54-5 EC No.: 203-039-3	**ferrocene** Acute Tox. 4 (H332, H302), Aquatic Chronic 1 (H410), Flam. Sol. 1 (H228), Repr. 1B (H360FD), STOT RE 2 (H373) Danger	0 – < 2 weight-%

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 95-63-6 EC No.: 202-436-9 Index No.: 601-043-00-3 REACH No.: 01-2119463588-24	**1,2,4-trimethylbenzene** Acute Tox. 4 (H332), Aquatic Chronic 2 (H411), Eye Irrit. 2 (H319), Flam. Liq. 3 (H226), STOT SE 3 (H335), Skin Irrit. 2 (H315)  Warning	0 – < 0.5 weight-%

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:
Never give anything by mouth to an unconscious person or a person with cramps. 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 but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:
Remove person to fresh air and keep comfortable for breathing. When in doubt or if symptoms are observed, get medical advice.

In case of skin contact:
After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. When in doubt or if symptoms are observed, get medical advice.

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. Remove contact lenses, if present and easy to do. Continue rinsing.

Following ingestion:
Rinse mouth thoroughly with water. Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

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

May be fatal if swallowed and enters airways.
Suspected of causing cancer.
May damage fertility. May damage the unborn child.

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

Treat symptomatically. Call a POISON CENTER. Symptoms can occur only after several hours. Aspiration hazard

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
Water mist
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

Do not inhale explosion and combustion gases. Danger of suffocation in case of accumulation in lowlying or closed rooms.

Hazardous combustion products:
Nitrogen oxides (NOx) Carbon monoxide Carbon dioxide (CO2)
During heating or in case of fire, toxic gases is possible.

5.3. Advice for firefighters

Do not inhale explosion and combustion gases. Move undamaged containers from immediate hazard area if it can be done safely. In case of fire: Wear self-contained breathing apparatus.

5.4. Additional information

Use water spray jet to protect personnel and to cool endangered containers.
Suppress gases/vapours/mists with water spray jet.
Fire class: B
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.
Do not breathe dust/fume/gas/mist/vapours/spray.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Avoid contact with eyes and skin.

Protective equipment:

Personal protection equipment: see section 8

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 appropriate respiratory protection. Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion. Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into surface water or drains.
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 (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

SECTION 7: Handling and storage
SECTION 8: Exposure controls/personal protection
SECTION 13: Disposal considerations

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:

Use only in well-ventilated areas. Do not breathe gas/fumes/vapour/spray.
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.

Fire prevent measures:

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge.

Measures to prevent aerosol and dust generation:
See protective measures under point 7 and 8.

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. Keep locked up and out of reach of children. Keep only in original container. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Packaging materials:
Keep/Store only in original container.

Requirements for storage rooms and vessels:
Shafts and sewers must be protected from entry of the product. Floors should be impervious, resistant to liquids and easy to clean.
Keep only in the original container in a cool, well-ventilated place.
Do not store at temperatures above 50°C.
Take precautionary measures against static discharge.

Hints on storage assembly:
TRGS 510
Do not store together with: Oxidising agent, Pyrophoric or self-heating substances, Food and feedingstuffs

Storage class (TRGS 510, Germany): 6.1C – Combustible substances of acute toxicity, category 3 / hazardous substances that are toxic or produce chronic effects

Further information on storage conditions:
Observe technical data sheet. Store in a cool dry place.

7.3. Specific end use(s)

Recommendation:
Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

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) from 30 Nov 2017	**Solvent naphtha (petroleum), heavy arom.** CAS No.: 64742-94-5 EC No.: 265-198-5	① 50 mg/m³ ② 100 mg/m³ ⑤ (C9-C14 Aromaten)
VLA (FR)	**Solvent naphtha (petroleum), heavy arom.** CAS No.: 64742-94-5 EC No.: 265-198-5	① 150 mg/m³ ⑤ (hydrocarbures, benzène C9-C12)
NO	**Solvent naphtha (petroleum), heavy arom.** CAS No.: 64742-94-5 EC No.: 265-198-5	① 25 ppm (120 mg/m³) ⑤ (White Spirit (aromatinnhold > 22 %))
CH from 1 Jan 2022	**Solvent naphtha (petroleum), heavy arom.** CAS No.: 64742-94-5 EC No.: 265-198-5	① 100 ppm (525 mg/m³) ⑤ Messmeth: OSHA
MAK (AT)	**Solvent naphtha (petroleum), heavy arom.** CAS No.: 64742-94-5 EC No.: 265-198-5	① 20 mL/m³ ② 40 mL/m³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von mehr als 25 %)

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**
MAK (AT)	**Solvent naphtha (petroleum), heavy arom.** CAS No.: 64742-94-5 EC No.: 265-198-5	① 70 mL/m³ ② 140 mL/m³ ⑤ (für Kohlenwasserstoffgemische mit einem Gehalt an aromatischen Kohlenwasserstoffen von 1 % bis 25 % und an Hexanen von weniger als 1 %)
WEL (GB)	**Solvent naphtha (petroleum), heavy arom.** CAS No.: 64742-94-5 EC No.: 265-198-5	① 500 mg/m³ ⑤ (Aromatics)
SI from 4 Dec 2018	**Solvent naphtha (petroleum), heavy arom.** CAS No.: 64742-94-5 EC No.: 265-198-5	① 50 mg/m³
CH from 1 Jan 2022	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³) ⑤ (Dampf und Aerosol; kann über die Haut aufgenommen werden) H C2; Tox: Blut OAW Auge; Messmeth: NIOSH OSHA
BE	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (53 mg/m³) ② 15 ppm (80 mg/m³) ⑤ (peut être absorbé par la peau) D
CZ from 1 Mar 2020	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 9.4 ppm (50 mg/m³) ② 18.8 ppm (100 mg/m³)
PL from 12 Jun 2018	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 20 mg/m³ ② 50 mg/m³ ⑤ (może przenikać przez skórę do organizmu) skóra
NO	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³) ⑤ E
IE from 17 Jan 2020	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³) ⑤ IOELV
HTP (FI)	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 1 ppm (5 mg/m³) ② 2 ppm (10 mg/m³)
LT	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³) ⑤ (Kancerogeninės) K
SE	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³) ③ 15 ppm (80 mg/m³)
NPEL (SK) from 23 Nov 2011	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³) ② 15 ppm (80 mg/m³) ⑤ K
DK	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³) ② 20 ppm (100 mg/m³) ⑤ EK
BG	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 50 mg/m³ ② 75 mg/m³
HR	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³)

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
ES	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (53 mg/m³) ② 15 ppm (80 mg/m³) ⑤ (puede ser absorbido a través dérmica) vía dérmica, VLI
RO from 21 Aug 2018	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³) ⑤ C2
EE	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³)
LV	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³)
Alberta (CA) from 1 Dec 2021	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (52 mg/m³) ② 15 ppm (79 mg/m³) ⑤ (may be absorbed through the skin) 1
BC (CA) from 1 Jun 2018	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm ⑤ (may be absorbed through the skin) Skin; 2B
MY from 1 Jan 2000	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (52 mg/m³)
IOELV (EU)	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³)
VLA (FR)	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³)
SI from 4 Dec 2018	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 50 mg/m³ ② 50 mg/m³ ⑤ (frakcija ki jo je mogoče vdihniti računati je treba z možnostjo prodiranja skozi kožo) K, Y, EU0
TW	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (52 mg/m³)
KR	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³) ② 15 ppm (75 mg/m³)
IS	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³)
CN from 1 Apr 2020	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 50 mg/m³ ② 75 mg/m³ ⑤ (###############)
RU	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	③ 20 mg/m³
HU	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 50 mg/m³ ⑤ i
GR from 1 Oct 2016	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³)
NL	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 50 mg/m³ ② 80 mg/m³

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
NL from 1 Jan 2023	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³) ② 16 ppm (80 mg/m³)
MAK (AT)	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³) ⑤ (kann über die Haut aufgenommen werden) III B, H
SI from 4 Dec 2018	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm ② 10 ppm ⑤ (računati je treba z možnostjo prodiranja skozi kožo) K, Y, EU0
TR	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³)
IDLH (US) from 1 Jan 1994	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 250 ppm
Québec (CA) from 1 Apr 2022	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm ⑤ (may be absorbed through the skin)
OSHA (US)	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³)
NIOSH (US)	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (50 mg/m³) ② 15 ppm (75 mg/m³)
ACGIH (US)	**naphthalene** CAS No.: 91-20-3 EC No.: 202-049-5	① 10 ppm (52 mg/m³) ② 15 ppm (79 mg/m³) ⑤ (may be absorbed through the skin)
BE	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³
CH from 1 Jan 2022	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³ ⑤ (einatembare Fraktion) Tox: Leber
MY from 1 Jan 2000	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³
IE from 17 Jan 2020	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³
HTP (FI)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³ ② 20 mg/m³
OSHA (US)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 15 mg/m³ ⑤ (inhalable fraction)
NIOSH (US)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³ ⑤ (inhalable fraction)
MAK (AT)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	② 10 mg/m³ ⑤ (einatembare Fraktion, max. 4x15 min./Schicht)
Alberta (CA)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³
BC (CA)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 3 mg/m³ ⑤ (respirable fraction)

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
ES	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³
VLA (FR)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³
KR	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³
GR from 1 Oct 2016	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³ ② 20 mg/m³
BC (CA)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³ ⑤ (inhalable fraction)
MAK (AT)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 5 mg/m³ ⑤ (einatembare Fraktion)
OSHA (US)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 5 mg/m³ ⑤ (respirable fraction)
NIOSH (US)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 5 mg/m³ ⑤ (respirable fraction)
ACGIH (US)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³
Québec (CA)	**ferrocene** CAS No.: 102-54-5 EC No.: 203-039-3	① 10 mg/m³
CH from 1 Jan 2022	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³) ② 40 ppm (200 mg/m³) ⑤ SSC; Tox: Blut Asthma ZNS; Messmeth: INRS
BE	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³) ⑤ tous isomères
PL from 12 Jun 2018	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 100 mg/m³ ② 170 mg/m³ ⑤ (może przenikać przez skórę do organizmu) skóra
NO	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³) ⑤ Trimetylbenzen, alle isomere E
HTP (FI)	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³)
SE from 21 Aug 2018	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³) ② 35 ppm (170 mg/m³)
NPEL (SK) from 10 Feb 2018	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³)
MAK (AT)	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	② 30 ppm (150 mg/m³) ⑤ (max. 4x15 min./Schicht)
BG from 6 Jan 2012	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³)

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
DK from 13 Feb 2021	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³) ② 40 ppm (200 mg/m³) ⑤ E
EE	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³) ⑤ (Trimetüülbenseen, kõik isomeerid)
LT from 21 Aug 2018	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³) ② 30 ppm (150 mg/m³)
RO	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³)
LV	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³)
Alberta (CA)	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 25 ppm (123 mg/m³)
BC (CA)	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 25 ppm
JP	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 25 ppm (120 mg/m³)
VRC (FR) from 3 May 2021	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³) ② 50 ppm (250 mg/m³)
SI from 4 Dec 2018	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³) ② 40 ppm (200 mg/m³) ⑤ Y, BAT, EU1
TW	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 25 ppm (123 mg/m³)
KR	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 25 ppm (125 mg/m³)
WEL (GB)	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 25 ppm (125 mg/m³)
IS	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³)
MAK (AT)	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³)
HU from 28 May 2022	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 100 mg/m³ ⑤ Trimetilbenzol T
RU	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 10 mg/m³ ③ 30 mg/m³
GR from 1 Oct 2016	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 25 ppm (125 mg/m³)
MY from 1 Jan 2000	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 25 ppm (123 mg/m³)

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**
TR	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³)
IE from 17 Jan 2020	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 20 ppm (100 mg/m³) ⑤ IOELV
ACGIH (US) from 1 Jan 2022	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 10 ppm
HR from 4 Jan 2021	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 25 ppm (125 mg/m³)
NL from 1 Jan 2023	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 100 mg/m³ ② 200 mg/m³
NIOSH (US)	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 25 ppm (125 mg/m³)
Québec (CA) from 1 Apr 2022	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	① 25 ppm
TRGS 900 (DE)	**short-term: peak limitation: 2 (II)**	① 50 mg/m³ ⑤ Mass fraction (wt %): 100

8.1.2. Biological limit values

Limit value type (country of origin)	**Substance name**	**Limit value**	**① Parameter ② Test material ③ Time of sampling: ④ Remark**
TRGS 903 (DE) from 1 Nov 2012	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	400 mg/g Creatinin	① Dimethybenzoesäure, Nach Hydrolyse: ② Urin ③ bei Langzeitexposition, Expositionsende bzw. Schichtende
BIO (HR) from 12 Oct 2018	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	400 mg/g kreatinin	① Dimethylbenzoesäuren ② urin ③ pri dugotrajnom izlaganju, kraj izloženosti, odnosno kraj smjene
BAT (SI) from 12 May 2021	**1,2,4-trimethylbenzene** CAS No.: 95-63-6 EC No.: 202-436-9	400 mg/g kreatinina	① dimetilbenzojska kislina (vse izomere po hidrolizi) ② urin ③ po več zaporednih delavnikih, ob koncu delovne izmene

8.1.3. DNEL-/PNEC-values

Substance name	**DNEL value**	**① DNEL type ② Exposure route**
Solvent naphtha (petroleum), heavy arom. CAS No.: 64742-94-5 EC No.: 265-198-5	2.31 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
Solvent naphtha (petroleum), heavy arom. CAS No.: 64742-94-5 EC No.: 265-198-5	0.95 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects

Substance name	DNEL value	① DNEL type ② Exposure route
naphthalene CAS No.: 91-20-3 EC No.: 202-049-5	25 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
naphthalene CAS No.: 91-20-3 EC No.: 202-049-5	25 mg/m³	① DNEL worker ② Acute - inhalation, local effects

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Avoid exposure. Do not breathe mist/vapours/spray.

8.2.2. Personal protection equipment

Eye/face protection:

During transfer: Eye glasses with side protection
DIN-/EN-Norms EN 166

Skin protection:

Hand protection
Suitable material: NBR (Nitrile rubber), FKM (fluoro rubber)
Thickness of the glove material: ≥ 0,4 mm
Breakthrough 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.
Tested protective gloves must be worn: EN ISO 374
Suitable protective clothing: Protective clothing solvent-resistant like: EN 465

Respiratory protection:

Usually no personal respirative protection necessary.
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Filtering device with filter or ventilator filtering device of type: AX

Other protection measures:

Wear suitable protective clothing. Take off immediately all contaminated clothing and wash it before reuse.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

8.3. Additional information

\P:38d62c90-6137-47d4-b5d6-1d10d96bfe6e\ 50 mg/m³ short-term (peak limitation): Overflow factor 2 (II)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid
Colour: red brown
Odour: characteristic

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	*not applicable*		
Melting point	*No data available*		
Freezing point	-42 °C		
Initial boiling point and boiling range	*No data available*		
Decomposition temperature	*not applicable*		
Flash point	112 °C		
Evaporation rate	*No data available*		

Parameter	Value	at °C	① Method ② Remark
Auto-ignition temperature	*No data available*		
Upper/lower flammability or explosive limits	*not applicable*		
Vapour pressure	*No data available*		
Vapour density	*not applicable*		
Density	837 kg/m³	15 °C	
Relative density	*not applicable*		
Bulk density	*not applicable*		
Water solubility	practically insoluble		
Partition coefficient: n-octanol/water	*not applicable*		
Dynamic viscosity	*No data available*		
Kinematic viscosity	2.5 mm²/s	40 °C	

9.2. Other information

\P:4fdc3bf8-4990-4d75-98f3-f10e3fffe7ec\

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge.

10.5. Incompatible materials

Oxidizing agent, Pyrophoric or self-heating substances
Strong acid
Alkali (lye), concentrated

10.6. Hazardous decomposition products

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx)
During heating or in case of fire, toxic gases is possible.
Do not inhale explosion and combustion gases. Danger of suffocation in case of accumulation in lowlying or closed rooms.

Further information

Do not mix with other chemicals.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%) EC No.: 920-360-0
LD_{50} oral: >4,150 mg/kg (Rat)
LD_{50} dermal: >2,000 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (dust/mist): >5.28 mg/L 4 h (Rat)
Solvent naphtha (petroleum), heavy arom. CAS No.: 64742-94-5 EC No.: 265-198-5
LD_{50} oral: >5,000 mg/kg (Rat OECD 401)
LD_{50} dermal: >2,000 mg/kg (Rabbit OECD 402)
LC_{50} Acute inhalation toxicity (dust/mist): >5.28 mg/L
Hydrocarbons, C11-C14, n-alkanes, iso-alkanes, cyclenes, <2% aromatics EC No.: 926-141-6
LD_{50} oral: >5,000 mg/kg (Rat)
LD_{50} dermal: >5,000 mg/kg (Rat)
LC_{50} Acute inhalation toxicity (vapour): >50 mg/L 8 h (Rat)

naphthalene CAS No.: 91-20-3 EC No.: 202-049-5	
LD_{50} oral: >2,000 mg/kg (rat) OECD Guideline 401 (Acute Oral Toxicity)	
LD_{50} dermal: >2,500 mg/kg (rat)	
LC_{50} Acute inhalation toxicity (vapour): >0.34 mg/L (Rat)	
LC_{50} Acute inhalation toxicity (dust/mist): >0.4 mg/L	
ferrocene CAS No.: 102-54-5 EC No.: 203-039-3	
LD_{50} oral: >1,320 mg/kg (Rat)	
LD_{50} dermal: >3,000 mg/kg (Rat)	
1,2,4-trimethylbenzene CAS No.: 95-63-6 EC No.: 202-436-9	
LD_{50} oral: 5,000 mg/kg (Rat)	
LD_{50} dermal: 3,440 mg/kg	
LC_{50} Acute inhalation toxicity (vapour): 18 mg/L 4 h (Rat)	

Acute oral toxicity:
Based on available data, the classification criteria are not met.

Acute dermal toxicity:
Based on available data, the classification criteria are not met.

Acute inhalation toxicity:
Based on available data, the classification criteria are not met.

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:
Suspected of causing cancer.

Reproductive toxicity:
May damage fertility. May damage the unborn child.

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

STOT-repeated exposure:
Based on available data, the classification criteria are not met.

Aspiration hazard:
May be fatal if swallowed and enters airways.
Observe risk of aspiration if vomiting occurs.
For viscosity data, see section 9.

Additional information:
Frequently or prolonged contact with skin may cause dermal irritation.

11.2. Information on other hazards

Endocrine disrupting properties:
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Other information:
No data available.

SECTION 12: Ecological information

12.1. Toxicity

Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%) EC No.: 920-360-0	
LC_{50}: >1,000 mg/L 4 d (fish)	
EC_{50}: >1,000 mg/L 2 d (crustaceans, Daphnia magna (Big water flea))	
NOEC: >5,000 mg/L 21 d (fish, fish)	
NOEC: >1,400 mg/L 21 d (crustaceans, Daphnia magna (Big water flea))	

Solvent naphtha (petroleum), heavy arom. CAS No.: 64742-94-5 EC No.: 265-198-5
LC_{50}: 2 – 5 mg/L 4 d (Oncorhynchus mykiss)
LC_{50}: ≥2 – ≤5 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout))
EC_{50}: 1.4 mg/L 2 d (crustaceans)
EC_{50}: 1.3 mg/L 3 d (Algae/water plant)
EC_{50}: 3 – 10 mg/L 2 d (Daphnia magna)
NOEC: 2.5 mg/L 4 d (fish)
NOEC: 0.3 mg/L 2 d (crustaceans)
Hydrocarbons, C11-C14, n-alkanes, iso-alkanes, cyclenes, <2% aromatics EC No.: 926-141-6
LC_{50}: >1,000 mg/L 2 d (fish, Daphnia magna (Big water flea))
EC_{50}: >1,000 mg/L 3 d (crustaceans, Pseudokirchneriella subcapitata)
EC_{50}: >1,000 mg/L 4 d (Algae/water plant, Oncorhynchus mykiss (Rainbow trout))
naphthalene CAS No.: 91-20-3 EC No.: 202-049-5
LC_{50}: 6.08 mg/L 3 d (fish, Pimephales promelas)
LC_{50}: 1.2 mg/L 4 d (fish, Oncorhynchus gorbuscha)
LC_{50}: 6.35 mg/L 2 d (fish, Pimephales promelas)
EC_{50}: 2.16 mg/L 2 d (crustaceans, Daphnia magna) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
NOEC: 0.12 mg/L 40 d (fish, Oncorhynchus gorbuscha)
LOEC: 0.38 mg/L 40 d (fish, Oncorhynchus gorbuscha)
EC_{50}: 1.96 mg/L 2 d (crustaceans, Daphnia magna)
ferrocene CAS No.: 102-54-5 EC No.: 203-039-3
LC_{50}: >24.5 mg/L 2 d (fish)
EC_{50}: >1.03 mg/L 3 d (Algae/water plant)
NOEC: >1.5 – ≤4.5 mg/L 12 d (fish)
NOEC: >1.5 – 5 mg/L 21 d (crustaceans)
1,2,4-trimethylbenzene CAS No.: 95-63-6 EC No.: 202-436-9
LC_{50}: 7.72 mg/L 4 d (fish, Pimephales promelas)
EC_{50}: 3.6 mg/L 2 d (crustaceans, Daphnia)
EC_{50}: 2.36 mg/L 4 d (Algae/water plant)
LC_{50}: 4.91 mg/L 2 d (crustaceans, Krustazeen, Adultus)

Aquatic toxicity:
Toxic to aquatic life with long lasting effects.

Additional ecotoxicological information:
Do not allow uncontrolled discharge of product into the environment.

12.2. Persistence and degradability

Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%) EC No.: 920-360-0
Biodegradation: Yes, rapidly
Remark: OECD 301F 60,7% 28d (ECHA Dossier)

Biodegradation:
Not readily biodegradable (according to OECD criteria)

12.3. Bioaccumulative potential

Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%) EC No.: 920-360-0
Log K_{OW}: 3.5
naphthalene CAS No.: 91-20-3 EC No.: 202-049-5
Log K_{OW}: 3.45
Bioconcentration factor (BCF): 168
ferrocene CAS No.: 102-54-5 EC No.: 203-039-3
Log K_{OW}: 3.711
1,2,4-trimethylbenzene CAS No.: 95-63-6 EC No.: 202-436-9
Log K_{OW}: 3.63
Bioconcentration factor (BCF): 243

Partition coefficient: n-octanol/water:
not applicable

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

Hydrocarbons, C14-C18, n-alcanes, isoalcanes, cyclics, aromatics (2-30%) EC No.: 920-360-0
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
Solvent naphtha (petroleum), heavy arom. CAS No.: 64742-94-5 EC No.: 265-198-5
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
Hydrocarbons, C11-C14, n-alkanes, iso-alkanes, cyclenes, <2% aromatics EC No.: 926-141-6
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
naphthalene CAS No.: 91-20-3 EC No.: 202-049-5
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
ferrocene CAS No.: 102-54-5 EC No.: 203-039-3
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
1,2,4-trimethylbenzene CAS No.: 95-63-6 EC No.: 202-436-9
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

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

12.6. Endocrine disrupting properties
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. 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
Directive 2008/98/EC (Waste Framework Directive)

HP 5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP 7	carcinogenic
HP 10	Toxic for reproduction
HP 14	Ecotoxic

Waste code packaging

Remark:
Dispose of waste according to applicable legislation.

Waste treatment options
Appropriate disposal / Product:
Dispose of waste according to applicable legislation.

Appropriate disposal / Package:
Non-contaminated packages may be recycled.
Handle contaminated packages in the same way as the substance itself.

Other disposal recommendations:
Consult the appropriate local waste disposal expert about waste disposal.

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

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shipping name			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Lösungsmittelnaphtha (Erdöl), schwere aromatische, Naphtalene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Lösungsmittelnaphtha (Erdöl), schwere aromatische, Naphtalene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Lösungsmittelnaphtha (Erdöl), schwere aromatische, Naphtalene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Lösungsmittelnaphtha (Erdöl), schwere aromatische, Naphtalene)
14.3. Transport hazard class(es)			
 9	 9	 9	 9
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
		 MARINE POLLUTANT	
14.6. Special precautions for user			
Hazard identification number (Kemler No.): 90 **Classification code:** M6 **Tunnel restriction code:** (-) **Remark:** Special provision 375: In the case of quantities of up to 5 L (UN 3082) or up to 5 kg (UN 3077) per inner or individual packaging, this hazardous material is subject to the general packing regulations 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1 .1.8 ADR / RID / ADN not subject to transport regulations. 2.10.2.7 IMDG Code: This dangerous goods is subject to compliance with regulations in quantities of up to 5 L (UN 3082) or up to 5 kg (UN 3077) per inner or individual packaging Of the general packing regulations 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 ADR / RID / ADN do not comply with transport regulations. A917 IATA-DGR: not restricted as per special provision A197 (in quantities of up to 5 L (UN 3082) or up to 5 kg (UN 3077) per inner or individual packaging).	**Classification code:** M6 **Remark:** Special provision 375: In the case of quantities of up to 5 L (UN 3082) or up to 5 kg (UN 3077) per inner or individual packaging, this hazardous material is subject to the general packing regulations 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1 .1.8 ADR / RID / ADN not subject to transport regulations. 2.10.2.7 IMDG Code: This dangerous goods is subject to compliance with regulations in quantities of up to 5 L (UN 3082) or up to 5 kg (UN 3077) per inner or individual packaging Of the general packing regulations 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 ADR / RID / ADN do not comply with transport regulations. A917 IATA-DGR: not restricted as per special provision A197 (in quantities of up to 5 L (UN 3082) or up to 5 kg (UN 3077) per inner or individual packaging).	**EmS-No.:** F-A, S-F **Remark:** Special provision 375: In the case of quantities of up to 5 L (UN 3082) or up to 5 kg (UN 3077) per inner or individual packaging, this hazardous material is subject to the general packing regulations 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1 .1.8 ADR / RID / ADN not subject to transport regulations. 2.10.2.7 IMDG Code: This dangerous goods is subject to compliance with regulations in quantities of up to 5 L (UN 3082) or up to 5 kg (UN 3077) per inner or individual packaging Of the general packing regulations 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 ADR / RID / ADN do not comply with transport regulations. A917 IATA-DGR: not restricted as per special provision A197 (in quantities of up to 5 L (UN 3082) or up to 5 kg (UN 3077) per inner or individual packaging).	**Remark:** Special provision 375: In the case of quantities of up to 5 L (UN 3082) or up to 5 kg (UN 3077) per inner or individual packaging, this hazardous material is subject to the general packing regulations 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1 .1.8 ADR / RID / ADN not subject to transport regulations. 2.10.2.7 IMDG Code: This dangerous goods is subject to compliance with regulations in quantities of up to 5 L (UN 3082) or up to 5 kg (UN 3077) per inner or individual packaging Of the general packing regulations 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 ADR / RID / ADN do not comply with transport regulations. A917 IATA-DGR: not restricted as per special provision A197 (in quantities of up to 5 L (UN 3082) or up to 5 kg (UN 3077) per inner or individual packaging).

14.7. Maritime transport in bulk according to IMO instruments

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

Restrictions on use:

Use restriction according to REACH annex XVII, no.: 3, 30

Other regulations (EU):

Hazard categories:

• E2 Hazardous to the Aquatic Environment in Category Chronic 2

Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).

VOC-CH:230,18 g/L (27,5 % w/w)

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:

Volatile organic compounds (VOC) content in percent by weight: 27.5 weight-%

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Annex Chemikalien-Verbotsverordnung (ChemVerbotsV)

The substance is subject to the Chemicals Prohibition Ordinance (ChemVerbotsV).

The disposal of this product requires the expertise resp. an annual instruction according to ChemVerbotsV.

Störfallverordnung (12. BImschV)

for substances contained in the product:

Hazard categories:

• E2 Hazardous to the Aquatic Environment in Category Chronic 2

Technische Anleitung zur Reinhaltung der Luft (TA-Luft)

Remark:

To follow: 5.2.5

Water hazard class

WGK:

2 - obviously hazardous to water

Source:

Self-classification (mixture; calculation rule).

Technische Regeln für Gefahrstoffe

TRGS 410
TRGS 500
TRGS 510
TRGS 903
TRGS 905
TRGS 910

\P:38d62c90-6137-47d4-b5d6-1d10d96bfe6e\ 50 mg/m³ short-term (peak limitation): Overflow factor 2 (II)

Berufsgenossenschaftliche Vorschriften (DGUV-Vorschriften)

To follow: Berufsgenossenschaftliche Informationen (DGUV-Informationen) 868

Berufsgenossenschaftliche Regeln (DGUV-Regeln) 189, 190, 192, 195

[CH] National regulations

Restrictions of occupation

Swiss Youth Protection Regulation (ArGV 5; SR 822.115): Young persons up to the age of 18 are not allowed to get in contact with or be exposed to this preparation in the course of their work unless the Federal Office for Professional Education and Technology (BBT) or the State Secretariat for Economic Affairs (SECO) has granted an exception.

Swiss Maternity Protection Ordinance (SR 822.111.52): Pregnant women and nursing mothers are only allowed to get in contact with or be exposed to this preparation in the course of their work when it is

established on the basis of a risk assessment by a specialist, that in context with the activities and the protection measures applied, exposure does no harm to mother and child.

Water hazard class

Klasse A

Other regulations, restrictions and prohibition regulations

Chemical Risk Reduction Ordinance (ChemRRV): not listed
Substances according to Annex XIV VO (EC) No 1907/2006: not listed
PIC-VO Switzerland: not listed
Switzerland Incident Ordinance: not applicable
VOC Regulation: 2710.1299
The cantonal laws and regulations must be observed.

[SK] National regulations

Other regulations, restrictions and prohibition regulations

Zákon č. 67/2010 Z.z., o podmienkach uvedenia chemických látok a chemických zmesí na trh a o zmene a doplnení niektorých zákonov (chemický zákon).
Zákon č. 124/2006 Z. z. o bezpečnosti a ochrane zdravia pri práci a o zmene a doplnení niektorých zákonov.
Zákon NR SR č. 355/2007 Z.z., o ochrane, podpore a rozvoji verejného zdravia a o zmene a doplnení niektorých zákonov, v znení neskorších predpisov.
Nariadenie vlády SR 471/2011 Z.z., ktorým sa mení nariadenie vlády Slovenskej republiky č. 355/2006 Z. z. o ochrane zamestnancov pred rizikami súvisiacimi s expozíciou chemickým faktorom pri práci, Príloha č.1.
Zákon č. 79/2015 Z.z. o odpadoch v znení neskorších predpisov.
Vyhláška MV SR č. 96/2004 Z.z., ktorou sa ustanovujú zásady protipožiarnej bezpečnosti pri manipulácii a skladovaní horľavých kvapalín, ťažkých vykurovacích olejov a rastlinných a živočíšnych tukov a olejov.
Zákon NR SR č. 137/2010 Z.z. o ovzduší v znení neskorších predpisov.
Zákon č. 319/2013 Z.z. o pôsobnosti orgánov štátnej správy pre sprístupňovanie biocídnych výrobkov na trh a ich používanie a o zmene a doplnení niektorých zákonov (biocídny zákon).

15.2. Chemical Safety Assessment

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

15.3. Additional information

Tactile warning according to EN/ISO 11683. Child-resistant fastenings (EN/862/ISO 8317).

SECTION 16: Other information

16.1. Indication of changes

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16.2. Abbreviations and acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DIN	German Institute for Standardization / German Industrial Standard
DNEL	derived no-effect level
EC_{50}	Effective Concentration 50%
ECHA	European Chemicals Agency
EN	European Standard
ES	Exposure scenario
EWC	European Waste Catalogue
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Standards Organisation
KG	body weight
LC_{50}	Lethal (fatal) Concentration 50%
LD_{50}	Lethal (fatal) Dose 50%
MAK	Maximum concentration in the workplace air (CH)
NFPA	National Fire Protection Association

NIOSH	National Institute for Occupational Safety & Health
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
OSHA	Occupational Safety & Health Administration
PBT	persistent and bioaccumulative and toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
TRGS	Technische Regeln für Gefahrstoffe
UN	United Nations
VOC	Volatile organic compounds
ZNS	central nervous system

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

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)

Substance name	Type	source of supply
naphthalene CAS No.: 91-20-3 EC No.: 202-049-5	Classification of the substance or mixture; LD_{50} oral; LD_{50} dermal; LC_{50}; EC_{50}; NOEC; LOEC	Source: European Chemicals Agency, http://echa.europa.eu/

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Aspiration hazard *(Asp. Tox. 1)*	H304: May be fatal if swallowed and enters airways.	Calculation method.
Carcinogenicity *(Carc. 2)*	H351: Suspected of causing cancer.	Calculation method.
Reproductive toxicity *(Repr. 1B)*	H360FD: May damage fertility. May damage the unborn child.	Calculation method.
Hazardous to the aquatic environment *(Aquatic Chronic 2)*	H411: Toxic to aquatic life with long lasting effects.	Calculation method.

16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Hazard statements	
H226	Flammable liquid and vapour.
H228	Flammable solid.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H360FD	May damage fertility. May damage the unborn child.
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.

Hazard statements	
H411	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.