

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

3-IN-ONE®High Performance Lubricant with PTFE

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

Relevant identified uses of the substance or mixture:

Lubricant

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

WD-40 Company Limited, PO Box 440, Kiln Farm, Milton Keynes, MK11 3LF, UK
 Telephone: +44 (0) 1908 555400, Fax: +44 (0) 1908 266900
 www.wd40.co.uk

IRL

P.R. Rielly Limited KarKraft House, Kilbarrack Industrial Estate, Kilbarrack, Dublin 5, IE
 Phone: 01-832 0006, Fax: 01-832 0016
 web@team.ie

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (WDC)

IRL

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (WDC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Aerosol	1	H222-Extremely flammable aerosol.
Asp. Tox.	1	H304-May be fatal if swallowed and enters airways.
Aerosol	1	H229-Pressurised container: May burst if heated.

2.1.2 Classification according to Directives 67/548/EEC and 1999/45/EC (including amendments)

F+, Extremely flammable
 Xn, Harmful, R65
 R66
 R67

2.2 Label elements

2.2.1 Labeling according to Regulation (EC) 1272/2008 (CLP)

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Revised on / Version: 18.02.2014 / 0002

Replaces revision of / Version: 13.02.2014 / 0001

Valid from: 18.02.2014

PDF print date: 14.04.2014

3-IN-ONE@High Performance Lubricant with PTFE



Danger

Hazard statement

H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

Prevention

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211-Do not spray on an open flame or other ignition source. P251-Do not pierce or burn, even after use.

Storage

P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

EUH208-Contains (R)-p-mentha-1,8-diene. May produce an allergic reaction.

EUH066-Repeated exposure may cause skin dryness or cracking.

Without adequate ventilation, formation of explosive mixtures may be possible.

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006.

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

REGULATION (EC) No 648/2004

n.a.

SECTION 3: Composition/information on ingredients

Aerosol

3.1 Substance

n.a.

3.2 Mixture

Naphtha (petroleum), hydrotreated heavy	
Registration number (REACH)	--
Index	649-327-00-6
EINECS, ELINCS, NLP	265-150-3
CAS	CAS 64742-48-9
content %	20-30
Classification according to Directive 67/548/EEC	Harmful, Xn, R65 R66
Classification according to Regulation (EC) 1272/2008 (CLP)	Asp. Tox. 1, H304
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
Registration number (REACH)	01-2119463258-33-XXXX
Index	---
EINECS, ELINCS, NLP	919-857-5 (REACH-IT List-No.)
CAS	CAS ---
content %	15-<20
Classification according to Directive 67/548/EEC	Flammable, R10 Harmful, Xn, R65 R66 R67
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336

(R)-p-mentha-1,8-diene	
Registration number (REACH)	--
Index	601-029-00-7
EINECS, ELINCS, NLP	227-813-5
CAS	CAS 5989-27-5
content %	0,1-<0,25
Classification according to Directive 67/548/EEC	Flammable, R10 Irritant, Xi, R38 Sensitizing, R43 Dangerous for the environment, N, R50 Dangerous for the environment, R53 Harmful, Xn, R65
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

For the text of the R-phrases / H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

If, for example, the note P is applied for a hydrocarbon then this has already been taken into account for the classification named here.

Quote: "Note P - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7)."

Article 4 of the regulation (EC) no. 1272/2008 (CLP regulation) was also observed and taken into account for the classification named here.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

If the person is unconscious, place in a stable side position and consult a doctor.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Typically no exposure pathway.

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

Danger of aspiration

In case of vomiting, keep head low so that the stomach content does not reach the lungs.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

The following may occur:

Irritation of the eyes

Irritation of the respiratory tract

Coughing

Headaches

Dizziness

Effects/damages the central nervous system

Unconsciousness

With long-term contact:

Drying of the skin.

Dermatitis (skin inflammation)

Sensitive individuals:

Allergic reaction possible.

Ingestion:

Nausea

Vomiting

Danger of aspiration

Oedema of the lungs

chemical pneumonitis (condition similar to pneumonia)

Other dangerous properties cannot be ruled out.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

Gastric lavage (stomach washing) only under endotracheal intubation.

Subsequent observation for pneumonia and pulmonary oedema.

Pulmonary oedema prophylaxis

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO₂

Extinguishment powder

Water jet spray

Alcohol resistant foam

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Toxic pyrolysis products.

Danger of bursting (explosion) when heated

Explosive vapour/air mixture

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary

Cool container at risk with water.

Dispose of contaminated extinguishment water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove possible causes of ignition - do not smoke.

Ensure sufficient supply of air.

Avoid inhalation, and contact with eyes or skin.

If applicable, caution - risk of slipping

6.2 Environmental precautions

Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous.

Prevent surface and ground-water infiltration, as well as ground penetration.

If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

If spray or gas escapes, ensure ample fresh air is available.

Without adequate ventilation, formation of explosive mixtures may be possible.

Active substance:

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.

Avoid inhalation of the vapours.

Avoid contact with eyes or skin.
 Keep away from sources of ignition - Do not smoke.
 Take measures against electrostatic charging, if appropriate.
 Do not use on hot surfaces.
 Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
 Observe directions on label and instructions for use.
 Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
 Not to be stored in gangways or stair wells.
 Store product closed and only in original packing.
 Do not store with flammable or self-igniting materials.
 Observe special regulations for aerosols!
 Store cool
 Keep protected from direct sunlight and temperatures over 50°C.
 Store in a well ventilated place.
 Observe special storage conditions (in Germany, e.g., in accordance with the regulations in the "Betriebssicherheitsverordnung").

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):
 1000 mg/m3

GB	Chemical Name	Naphtha (petroleum), hydrotreated heavy	Content %:20-30
	WEL-TWA: 1200 mg/m3 (>= C7 normal and branched chain alkanes)	WEL-STEL: ---	---
	BMGV: ---	Other information: ---	
IRL	Chemical Name	Naphtha (petroleum), hydrotreated heavy	Content %:20-30
	OELV-8h: 600 mg/m3 (AGW)	OELV-15min: 2(II) (AGW)	---
	BLV: ---	Other information: ---	
GB	Chemical Name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Content %:15-<20
	WEL-TWA: 800 mg/m3	WEL-STEL: ---	---
	BMGV: ---	Other information: (WEL acc. to RCP-method, EH40)	
IRL	Chemical Name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Content %:15-<20
	OELV-8h: 100 ppm (573 mg/m3) (White Spirit)	OELV-15min: 125 ppm (720 mg/m3) (White Spirit)	---
	BLV: ---	Other information: ---	
GB	Chemical Name	Petroleum gases, liquified	Content %:
	WEL-TWA: 1000 ppm (1750 mg/m3) (Liquefied petroleum gas (LPG))	WEL-STEL: 1250 ppm (2180 mg/m3) (Liquefied petroleum gas (LPG))	---
	BMGV: ---	Other information: ---	
IRL	Chemical Name	Petroleum gases, liquified	Content %:
	OELV-8h: 1000 ppm (1800 mg/m3)	OELV-15min: 1250 ppm (2250 mg/m3)	---
	BLV: ---	Other information: ---	
GB	Chemical Name	Oil mist, mineral	Content %:
	WEL-TWA: 5 mg/m3 (ACGIH)	WEL-STEL: 10 mg/m3 (ACGIH)	---
	BMGV: ---	Other information: ---	
IRL	Chemical Name	Oil mist, mineral	Content %:

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OELV-8h: 0,2 mg/m3 (Mineral oil, used in metal working (inhalable)), 5 mg/m3 (Mineral oil, pure, highly & severely refined (inhalable))	OELV-15min: ---	---
BLV: ---	Other information: ---	

Chemical Name	Paraffin wax, fume		Content %:
WEL-TWA: 2 mg/m3	WEL-STEL: 6 mg/m3	---	
BMGV: ---	Other information: ---		

Chemical Name	Paraffin wax, fume		Content %:
OELV-8h: 2 mg/m3	OELV-15min: 6 mg/m3	---	
BLV: ---	Other information: ---		

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
 ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

OELV-8h = Occupational Exposure Limit Value (8-hour reference period). (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction. | OELV-15min = Occupational Exposure Limit Value (15-minute reference period). (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction. | BLV = Biological limit value | Other information: Carc1A, Carc1B = carcinogenic substance, Cat. 1A or 1B. Muta1A, Muta1B = mutagenic substance, Cat. 1A or 1B. Repr1A, Repr1B = Substances known to be toxic for reproduction, Cat. 1A or 1B. Sk = can be absorbed through skin. Asphx = asphyxiant. Sen = Respiratory sensitizer. BOELV = Binding Occupational Exposure Limit Values. IOELV = Indicative Occupational Exposure Limit Values.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	208	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	871	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	125	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	125	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	185	mg/m3	

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
 Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
 With danger of contact with eyes.
 Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
 Normally not necessary.
 with long-term contact:
 If applicable
 Protective nitrile gloves (EN 374)
 Minimum layer thickness in mm:

0,4

Permeation time (penetration time) in minutes:

> 480

The recommended maximum wearing time is 50% of breakthrough time.

Protective gloves made of polyvinyl alcohol (EN 374)

Protective Viton® / fluoroelastomer gloves (EN 374)

Protective hand cream recommended.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments)

Respiratory protection:

Normally not necessary.

If OES or MEL is exceeded.

Filter A2 P2 (EN 14387), code colour brown, white

At high concentrations:

Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Aerosol, Substance: Liquid
Colour:	Yellow
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	n.a.
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	n.a.
Flash point:	n.a.
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	0,8 Vol-%
Upper explosive limit:	9 Vol-%
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	Not determined
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Product is not explosive. Possible build up of explosive/highly flammable vapour/air mixture.
Oxidising properties:	No

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined

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Surface tension: Not determined
 Solvents content: Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

See also section 7.

Heating, open flame, ignition sources

Pressure increase will result in danger of bursting.

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

SECTION 11: Toxicological information

Possibly more information on health effects, see Section 2.1 (classification).

3-IN-ONE®High Performance Lubricant with PTFE

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Respiratory tract irritation:						n.d.a.
Repeated dose toxicity:						n.d.a.
Symptoms:						n.d.a.
Other information:						Classification according to calculation procedure.

Naphtha (petroleum), hydrotreated heavy

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						unconsciousness, headaches, dizziness
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	>20	mg/l/4h	Rat		

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Skin corrosion/irritation:						Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:						Mild irritant
Respiratory or skin sensitisation:						Not sensitizing
Germ cell mutagenicity:						Negative
Aspiration hazard:						Yes
Symptoms:						unconsciousness, headaches, dizziness

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics						
Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>5000	mg/m ³ /8h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Carcinogenicity:					OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative, Analogous conclusion
Reproductive toxicity:					OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusion
Specific target organ toxicity - single exposure (STOT-SE):						May cause drowsiness or dizziness.
Aspiration hazard:						Yes
Repeated dose toxicity:					OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Not to be expected
Symptoms:						unconsciousness, headaches, dizziness
Symptoms:						unconsciousness, headaches, dizziness, reddening of the skin
Symptoms:						unconsciousness, headaches, dizziness

(R)-p-mentha-1,8-diene						
Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	4400	mg/kg	Rat		
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		

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Symptoms:							diarrhoea, rash, itching, gastrointestinal disturbances, mucous membrane irritation nausea and vomiting.
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Petroleum gases, liquified							
Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes	
Acute toxicity, by inhalation:	LC50	>5	mg/l				
Skin corrosion/irritation:						Not irritant	
Serious eye damage/irritation:						Not irritant	

Paraffin wax, fume							
Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes	
Symptoms:						diarrhoea	

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

3-IN-ONE®High Performance Lubricant with PTFE							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:							n.d.a.
Toxicity to daphnia:							n.d.a.
Toxicity to algae:							n.d.a.
Persistence and degradability:							Isolate as much as possible with an oil separator.
Bioaccumulative potential:							n.d.a.
Mobility in soil:							n.d.a.
Results of PBT and vPvB assessment							n.d.a.
Other adverse effects:							n.d.a.
Other information:							According to the recipe, contains no AOX.

Naphtha (petroleum), hydrotreated heavy							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	>100	mg/l			
Toxicity to daphnia:	LC50	96h	>100	mg/l			
Persistence and degradability:							Readily biodegradable
Bioaccumulative potential:	Log Pow		5,5-7,2				

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	>1000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to fish:	NOELR	28d	0,13	mg/l	Oncorhynchus mykiss	QSAR	
Toxicity to fish:	LC50	96h	>1000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EC50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to daphnia:	NOELR	21d	0,23	mg/l	Daphnia magna	QSAR	

Toxicity to algae:	NOELR	72h	100	mg/l	Raphidocelis subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to algae:	NOELR	72h	3	mg/l	Pseudokirchnerie lla subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to algae:	EbC50	72h	>1000	mg/l	Pseudokirchnerie lla subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to algae:	NOELR	72h	100	mg/l	Raphidocelis subcapitata	OECD 201 (Alga, Growth Inhibition Test)	groth rate
Toxicity to algae:	ErC50	72h	>1000	mg/l	Pseudokirchnerie lla subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		28d	80	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

(R)-p-mentha-1,8-diene

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	0,70	mg/l	Pimephales promelas		
Toxicity to daphnia:	EC50	48h	0,42	mg/l	Daphnia magna		
Toxicity to algae:	NOEC/NOEL	96h	4	mg/l			
Persistence and degradability:		28d	92	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	

Petroleum gases, liquified

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Bioaccumulative potential:							No

SECTION 13: Disposal considerations**13.1 Waste treatment methods****For the substance / mixture / residual amounts**

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2001/118/EC, 2001/119/EC, 2001/573/EC)

07 06 04 other organic solvents, washing liquids and mother liquors

Recommendation:

Pay attention to local and national official regulations

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations

Recommendation:

Do not perforate, cut up or weld uncleaned container.

Recycling

15 01 04 metallic packaging

SECTION 14: Transport information

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General statements

UN number: 1950
Transport by road/by rail (ADR/RID)
 UN proper shipping name:
 UN 1950 AEROSOLS
 Transport hazard class(es): 2.1
 Packing group: -
 Classification code: 5F
 LQ (ADR 2013): 1 L
 LQ (ADR 2009): 2
 Environmental hazards: Not applicable
 Tunnel restriction code: D



Transport by sea (IMDG-code)

UN proper shipping name:
 AEROSOLS
 Transport hazard class(es): 2.1
 Packing group: -
 EmS: F-D, S-U
 Marine Pollutant: n.a
 Environmental hazards: Not applicable



Transport by air (IATA)

UN proper shipping name:
 Aerosols, flammable
 Transport hazard class(es): 2.1
 Packing group: -
 Environmental hazards: Not applicable



Special precautions for user

Persons employed in transporting dangerous goods must be trained.
 All persons involved in transporting must observe safety regulations.
 Precautions must be taken to prevent damage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Freighted as packaged goods rather than in bulk, therefore not applicable.
 Minimum amount regulations have not been taken into account.
 Danger code and packing code on request.
 Comply with special provisions.

SECTION 15: Regulatory information

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

For classification and labelling see Section 2.
 Observe restrictions: Yes
 Comply with trade association/occupational health regulations.
 Observe youth employment law (German regulation).

VOC (1999/13/EC): ~72% w/w

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

These details refer to the product as it is delivered.
 EU F0010
 Revised sections: 3, 8, 11, 12

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Aerosol 1, H222	Classification based on test data.
Asp. Tox. 1, H304	Classification according to calculation procedure.
Aerosol 1, H229	Classification based on test data.

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The following phrases represent the posted R phrases / H phrases, Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

10 Flammable.

38 Irritating to skin.

43 May cause sensitization by skin contact.

50 Very toxic to aquatic organisms.

53 May cause long-term adverse effects in the aquatic environment.

65 Harmful: may cause lung damage if swallowed.

66 Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Aerosol — Aerosols

Asp. Tox. — Aspiration hazard

Flam. Liq. — Flammable liquid

STOT SE — Specific target organ toxicity - single exposure - narcotic effects

Skin Irrit. — Skin irritation

Skin Sens. — Skin sensitization

Aquatic Acute — Hazardous to the aquatic environment - acute

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Any abbreviations and acronyms used in this document:

AC Article Categories

acc., acc. to according, according to

ACGIH American Conference of Governmental Industrial Hygienists

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOEL Acceptable Operator Exposure Level

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number

ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)

BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)

BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)

BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)

BMGV Biological monitoring guidance value (EH40, UK)

BOD Biochemical oxygen demand

BSEF Bromine Science and Environmental Forum

bw body weight

CAS Chemical Abstracts Service

CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids

CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques

CIPAC Collaborative International Pesticides Analytical Council

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

COD Chemical oxygen demand

CTFA Cosmetic, Toiletry, and Fragrance Association

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

DOC Dissolved organic carbon

DT50 Dwell Time - 50% reduction of start concentration

DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)

dw dry weight

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EC European Community
ECHA European Chemicals Agency
EEA European Economic Area
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
ERC Environmental Release Categories
ES Exposure scenario
etc. et cetera
EU European Union
EWC European Waste Catalogue
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
HET-CAM Hen's Egg Test - Chorionallantoic Membrane
HGWP Halocarbon Global Warming Potential
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC Intermediate Bulk Container
IBC (Code) International Bulk Chemical (Code)
IC Inhibitory concentration
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform Chemical Information Database
LC lethal concentration
LC50 lethal concentration 50 percent kill
LCLo lowest published lethal concentration
LD Lethal Dose of a chemical
LD50 Lethal Dose, 50% kill
LDLo Lethal Dose Low
LOAEL Lowest Observed Adverse Effect Level
LOEC Lowest Observed Effect Concentration
LOEL Lowest Observed Effect Level
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute of Occupational Safety and Health (United States of America)
NOAEC No Observed Adverse Effective Concentration
NOAEL No Observed Adverse Effect Level
NOEC No Observed Effect Concentration
NOEL No Observed Effect Level
ODP Ozone Depletion Potential
OECD Organisation for Economic Co-operation and Development
org. organic
PAH polycyclic aromatic hydrocarbon
PBT persistent, bioaccumulative and toxic
PC Chemical product category
PE Polyethylene
PNEC Predicted No Effect Concentration
POCP Photochemical ozone creation potential
ppm parts per million
PROC Process category
PTFE Polytetrafluorethylene
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT Self-Accelerating Decomposition Temperature

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SAR Structure Activity Relationship

SU Sector of use

SVHC Substances of Very High Concern

Tel. Telephone

ThOD Theoretical oxygen demand

TOC Total organic carbon

TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).

WHO World Health Organization

wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by:

Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

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