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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 12.06.2018 / 0005
Replacing version dated / version: 07.03.2017 / 0004
Valid from: 12.06.2018
PDF print date: 24.07.2018
3-IN-ONE® Dry Lubricant with PTFE

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® Dry 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, United Kingdom
Phone:+44 (0) 1908 555400, Fax:+44 (0) 1908 266900
Compliance@wd40.co.uk, www.wd40.co.uk

IRL

P.R. Rielly Limited KarKraft House, Kilbarrack Industrial Estate, Kilbarrack, Dublin 5, Ireland
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 number

Emergency information services / official advisory body:

IRL

National Poisons Information Centre, Beaumont Hospital, Dublin 9, Ireland, Tel.:
+353 (0)1 809 2166 (Public Poisons Info Line, 8am-10pm, 7 days a week)
+353 (0)1 809 2566 (Info for Healthcare Professionals ONLY, 24 h, 7 days a week)

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

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

Hazard class	Hazard category	Hazard statement
Skin Irrit.	2	H315-Causes skin irritation.
STOT SE	3	H336-May cause drowsiness or dizziness.
Aquatic Chronic	3	H412-Harmful to aquatic life with long lasting effects.
Aerosol	1	H222-Extremely flammable aerosol.
Aerosol	1	H229-Pressurised container: May burst if heated.

2.2 Label elements

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

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Danger

H315-Causes skin irritation. H336-May cause drowsiness or dizziness. H412-Harmful to aquatic life with long lasting effects. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.

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. P261-Avoid breathing vapours or spray. P271-Use only outdoors or in a well-ventilated area. P280-Wear protective gloves.

P312-Call a POISON CENTRE / doctor if you feel unwell.

P405-Store locked up. P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

P501-Dispose of contents / container safely.

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

Hydrocarbons, C6, isoalkanes, <5% n-hexane

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

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 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

SECTION 3: Composition/information on ingredients

Aerosol

3.1 Substance

n.a.

3.2 Mixture

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	
Registration number (REACH)	01-2119475514-35-XXXX
Index	---
EINECS, ELINCS, NLP	921-024-6 (REACH-IT List-No.)
CAS	---
content %	20-30
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Aquatic Chronic 2, H411 Asp. Tox. 1, H304 STOT SE 3, H336

Hydrocarbons, C6, isoalkanes, <5% n-hexane	
Registration number (REACH)	01-2119484651-34-XXXX
Index	---
EINECS, ELINCS, NLP	931-254-9 (REACH-IT List-No.)
CAS	(64742-49-0)
content %	10-20
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411

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Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	
Registration number (REACH)	01-2119475515-33-XXXX
Index	---
EINECS, ELINCS, NLP	927-510-4 (REACH-IT List-No.)
CAS	---
content %	5-15
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411

Propan-2-ol	
Registration number (REACH)	---
Index	603-117-00-0
EINECS, ELINCS, NLP	200-661-7
CAS	67-63-0
content %	1-5
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

For the text of the 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 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.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!
 Never pour anything into the mouth of an unconscious person!

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.
 Respiratory arrest - Artificial respiration apparatus necessary.

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. Consult doctor immediately.
 Danger of aspiration
 In case of vomiting, keep head low so that the stomach content does not reach the lungs.
 Immediate admittance to a hospital.

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
 with long-term contact:
 Drying of the skin.
 Dermatitis (skin inflammation)
 At high concentrations:
 Irritation of the respiratory tract
 Coughing
 Dizziness
 Headaches
 Effect on the central nervous system
 Coordination disorders

Unconsciousness

Ingestion of large quantities:

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

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO₂

Extinction powder

Water jet spray

Large fire:

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

Hydrofluoric acid

Toxic gases

Danger of bursting (explosion) when heated

Explosive vapour/air or gas/air mixtures.

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 extinction 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 contact with eyes or skin.

If applicable, caution - risk of slipping.

6.2 Environmental precautions

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

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

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

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Ensure good ventilation.
 Avoid inhalation of the vapours.
 Keep away from sources of ignition - Do not smoke.
 Take measures against electrostatic charging, if appropriate.
 Do not use on hot surfaces.
 Avoid contact with eyes or skin.
 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.
 Store product closed and only in original packing.
 Not to be stored in gangways or stair wells.
 Do not store with oxidizing agents.
 Observe special regulations for aerosols!
 Observe special storage conditions.
 Keep protected from direct sunlight and temperatures over 50°C.
 Store in a well ventilated place.
 Store in a dry place.

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	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	Content %:20-30
	WEL-TWA: 1400 mg/m3	WEL-STEL: ---	---
	Monitoring procedures: - Compur - KITA-187 S (551 174)		
	BMGV: ---	Other information: (WEL acc. to RCP-method, EH40)	

IRL	Chemical Name	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	Content %:20-30
	OELV-8h: 400 ppm (1590 mg/m3) (naphtha)	OELV-15min: ---	---
	Monitoring procedures: - Compur - KITA-187 S (551 174)		
	BLV: ---	Other information: ---	

GB	Chemical Name	Hydrocarbons, C6, isoalkanes, <5% n-hexane	Content %:10-20
	WEL-TWA: 800 mg/m3	WEL-STEL: ---	---
	Monitoring procedures: - Draeger - Hydrocarbons 2/a (81 03 581) - Draeger - Hydrocarbons 0,1%/c (81 03 571) - Compur - KITA-187 S (551 174)		
	BMGV: ---	Other information: (WEL acc. to RCP-method, EH40)	

IRL	Chemical Name	Hydrocarbons, C6, isoalkanes, <5% n-hexane	Content %:10-20
	OELV-8h: 1200 mg/m3 (AGW)	OELV-15min: 2(II) (AGW)	---
	Monitoring procedures: - Draeger - Hydrocarbons 2/a (81 03 581) - Draeger - Hydrocarbons 0,1%/c (81 03 571) - Compur - KITA-187 S (551 174)		
	BLV: ---	Other information: ---	

GB	Chemical Name	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Content %:5-15
	WEL-TWA: 800 mg/m3	WEL-STEL: ---	---
	Monitoring procedures: - Draeger - Hydrocarbons 2/a (81 03 581)		

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	- Draeger - Hydrocarbons 0,1%/c (81 03 571) - Compur - KITA-187 S (551 174)	
BMGV: ---		Other information: (WEL acc. to RCP-method, EH40)

(IRL) Chemical Name	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Content %:5-15
OELV-8h: 1200 mg/m3 (AGW)	OELV-15min: 2(II) (AGW)	---
Monitoring procedures:	- Draeger - Hydrocarbons 2/a (81 03 581) - Draeger - Hydrocarbons 0,1%/c (81 03 571) - Compur - KITA-187 S (551 174)	
BLV: ---		Other information: ---

(GB) Chemical Name	Propan-2-ol	Content %:1-5
WEL-TWA: 400 ppm (999 mg/m3)	WEL-STEL: 500 ppm (1250 mg/m3)	---
Monitoring procedures:	- Compur - KITA-122 SA(C) (549 277) - Compur - KITA-150 U (550 382) - Draeger - Alcohol 25/a i-Propanol (81 01 631) DFG (D) (Lösungsmittelgemische), DFG (E) (Solvent mixtures 6) - 1998, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 66-3 (2004) - Draeger - Alcohol 100/a (CH 29 701)	
BMGV: ---		Other information: ---

(IRL) Chemical Name	Propan-2-ol	Content %:1-5
OELV-8h: 200 ppm	OELV-15min: 400 ppm	---
Monitoring procedures:	- Compur - KITA-122 SA(C) (549 277) - Compur - KITA-150 U (550 382) - Draeger - Alcohol 25/a i-Propanol (81 01 631) DFG (D) (Lösungsmittelgemische), DFG (E) (Solvent mixtures 6) - 1998, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 66-3 (2004) - Draeger - Alcohol 100/a (CH 29 701)	
BLV: 40 mg/l (acetone, U, d) (ACGIH-BE1)		Other information: Sk

(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))	---
Monitoring procedures:	---	
BMGV: ---		Other information: ---

(IRL) Chemical Name	Petroleum gases, liquified	Content %:
OELV-8h: 1000 ppm (1800 mg/m3)	OELV-15min: 1250 ppm (2250 mg/m3)	---
Monitoring procedures:	---	
BLV: ---		Other information: ---

(GB) WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | 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.

(IRL) OELV-8h = Occupational Exposure Limit Value (8-hour reference period). (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction.
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). | OELV-15min = Occupational Exposure Limit Value (15-minute reference period). (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction.
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | 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.

8.2 Exposure controls

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - oral	Long term, systemic effects	DNEL	699	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	699	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	608	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	773	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	2035	mg/kg bw/day	

Hydrocarbons, C6, isoalkanes, <5% n-hexane						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - oral	Long term, systemic effects	DNEL	1301	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	1377	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1131	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	13964	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	5306	mg/m3	

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - oral	Long term, systemic effects	DNEL	149	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	149	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	447	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	300	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	2085	mg/m3	

Propan-2-ol						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	140,9	mg/l	
	Environment - marine		PNEC	140,9	mg/l	
	Environment - sediment, freshwater		PNEC	552	mg/kg	
	Environment - sediment, marine		PNEC	552	mg/kg	
	Environment - soil		PNEC	28	mg/kg	
	Environment - sewage treatment plant		PNEC	2251	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	140,9	mg/l	
Consumer	Human - dermal	Long term	DNEL	319	mg/kg	(1 d)
Consumer	Human - inhalation	Long term	DNEL	89	mg/m3	
Consumer	Human - oral	Long term	DNEL	26	mg/kg	(1 d)
Workers / employees	Human - dermal	Long term	DNEL	888	mg/kg	(1 d)

Workers / employees	Human - inhalation	Long term	DNEL	500	mg/m3	
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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.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. BS EN 14042.

BS EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

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:

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)

Protective gloves made of polyvinyl alcohol (EN 374)

Protective Viton® / fluoroelastomer gloves (EN 374)

Minimum layer thickness in mm:

$\geq 0,4$

Permeation time (penetration time) in minutes:

≥ 480

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

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

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. Active substance: liquid.
Colour:	White
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	Not determined
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:	3,0 Vol-%
Upper explosive limit:	18,6 Vol-%
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	0,699 g/ml (Liquid concentrate)
Bulk density:	Not determined
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:	Possible build up of explosive/highly flammable vapour/air mixture. Product is not explosive.
Oxidising properties:	No

9.2 Other information

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

See also section 7.

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

11.1 Information on toxicological effects

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

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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.
Symptoms:						n.d.a.
Other information:						Classification according to calculation procedure.

Hydrocarbons, C6, isoalkanes, <5% n-hexane

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>16750	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>3350	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	259354	mg/m3	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:						Irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	No (skin contact)
Aspiration hazard:						Yes
Symptoms:						drowsiness, unconsciousness, heart/circulatory disorders, headaches, cramps, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by oral route:	LD50	>8	ml/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>=4	ml/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>23,3	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Aspiration hazard:						Yes
Symptoms:						diarrhoea, headaches, dizziness, nausea and vomiting.

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	4570-5840	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	13900	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	30	mg/l/4h	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
Germ cell mutagenicity:				Salmonella typhimurium	(Ames-Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:						Negative
Specific target organ toxicity - repeated exposure (STOT-RE):						Target organ(s): liver
Aspiration hazard:						No
Symptoms:						breathing difficulties, unconsciousness, vomiting, headaches, fatigue, dizziness, nausea
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	900	mg/kg	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	

Petroleum gases, liquified

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	>5	mg/l			

SECTION 12: Ecological information

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

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Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							Isolate as much as possible with an oil separator.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Other adverse effects:							n.d.a.
Other information:							According to the recipe, contains no AOX.

Hydrocarbons, C6, isoalkanes, <5% n-hexane

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	48h	>1	mg/l	Oryzias latipes		Analogous conclusion
12.1. Toxicity to fish:	NOEC/NOEL	28d	4,09	mg/l	Oncorhynchus mykiss	QSAR	
12.1. Toxicity to daphnia:	EC50	48h	31,9	mg/l	Daphnia magna	QSAR	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	7,14	mg/l	Daphnia magna	QSAR	
12.1. Toxicity to daphnia:	LC50	48h	3,87	mg/l	Daphnia magna		Analogous conclusion
12.1. Toxicity to algae:	NOELR	72h	30	mg/l	Raphidocelis subcapitata		
12.1. Toxicity to algae:	ErC50	72h	55	mg/l	Pseudokirchnerie lla subcapitata		Analogous conclusion
12.1. Toxicity to algae:	EC50	72h	13,56	mg/l	Pseudokirchnerie lla subcapitata	QSAR	
12.2. Persistence and degradability:		28d	98	%			Readily biodegradable (Analogous conclusion)
12.3. Bioaccumulative potential:	Log Kow		4				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>13,4	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EL50	24h	12	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	LC50	48h	3	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EL50	72h	12	mg/l	Pseudokirchnerie lla subcapitata	OECD 201 (Alga, Growth Inhibition Test)	

Propan-2-ol

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Leuciscus idus		
12.1. Toxicity to daphnia:	EC50	48h	2285	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	>100	mg/l	Desmodesmus subspicatus		
12.2. Persistence and degradability:		21d	95	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	
12.2. Persistence and degradability:			99,9	%		OECD 303 A (Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units)	

12.3. Bioaccumulative potential:	Log Pow		0,05			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.4. Mobility in soil:	Koc		1,1				Expert judgement
Toxicity to bacteria:	EC50		>1000	mg/l	activated sludge		
Other information:	ThOD		2,4	g/g			
Other information:	BOD5		53	%			
Other information:	COD		96	%			References
Other information:	BOD		1171	mg/g			

Petroleum gases, liquified

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	147,54	mg/l		QSAR	

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. (2014/955/EU)

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

16 05 04 gases in pressure containers (including halons) containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Take full aerosol cans to problem waste collection.

Take emptied aerosol cans to valuable material collection.

For contaminated packing material

Pay attention to local and national official regulations.

15 01 04 metallic packaging

15 01 10 packaging containing residues of or contaminated by hazardous substances

Do not perforate, cut up or weld uncleaned container.

SECTION 14: Transport information**General statements**

14.1. UN number: 1950

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 1950 AEROSOLS

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

Classification code: 5F

LQ: 1 L

14.5. Environmental hazards: Not applicable

Tunnel restriction code: D

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

AEROSOLS

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

EmS: F-D, S-U

Marine Pollutant: n.a

14.5. Environmental hazards: Not applicable



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Transport by air (IATA)

14.2. UN proper shipping name:

Aerosols, flammable

14.3. Transport hazard class(es):

2.1

14.4. Packing group:

-

14.5. Environmental hazards:

Not applicable



14.6. 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.

14.7. Transport in bulk according to Annex II of MARPOL 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

Observe restrictions:

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!

Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements
P3a	11.1	150 (netto)	500 (netto)

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC):

~ 96,6 %

REGULATION (EC) No 648/2004

n.a.

Observe incident regulations.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

EU F0019

Revised sections:

2, 3, 4, 8, 11, 12, 13, 15

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

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
Skin Irrit. 2, H315	Classification according to calculation procedure.
STOT SE 3, H336	Classification according to calculation procedure.
Aquatic Chronic 3, H412	Classification according to calculation procedure.

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Aerosol 1, H222	Classification based on test data.
Aerosol 1, H229	Classification based on test data.

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

H225 Highly flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

Skin Irrit. — Skin irritation

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

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Aerosol — Aerosols

Flam. Liq. — Flammable liquid

Asp. Tox. — Aspiration hazard

Eye Irrit. — Eye irritation

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
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)

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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:

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