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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 01.02.2016 / 0003
Replacing version dated / version: 24.06.2015 / 0002
Valid from: 01.02.2016
PDF print date: 16.02.2016
Colad Undercoating M40 Black

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

Colad Undercoating M40 Black

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

Relevant identified uses of the substance or mixture:

Corrosion protection

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

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EMM International BV, Marsweg 59, 8013 PE Zwolle, Netherlands
Phone: +31-38-4676600, Fax: +31-38-4676699
info@emm.com, www.emm.com

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:

Telephone number of the company in case of emergencies:

+31-38-4676600 (Week days available between 08:00 & 17:00)

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
Flam. Liq.	3	H226-Flammable liquid and vapour.
STOT SE	3	H336-May cause drowsiness or dizziness.
Aquatic Chronic	3	H412-Harmful to aquatic life with long lasting effects.
STOT RE	2	H373-May cause damage to organs through prolonged or repeated exposure by inhalation (central nervous system).

2.2 Label elements

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



Warning

H226-Flammable liquid and vapour. H336-May cause drowsiness or dizziness. H412-Harmful to aquatic life with long lasting effects. H373-May cause damage to organs through prolonged or repeated exposure by inhalation (central nervous system).

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260-Do not breathe vapours or spray.

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

EUH066-Repeated exposure may cause skin dryness or cracking.

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Hydrocarbons, C9, aromatics

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

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.

Hazardous to drinking water, on escape of even small quantities.

SECTION 3: Composition/information on ingredients

3.1 Substance

n.a.

3.2 Mixture

Hydrocarbons, C9, aromatics	
Registration number (REACH)	01-2119455851-35-XXXX
Index	---
EINECS, ELINCS, NLP	918-668-5 (REACH-IT List-No.)
CAS	(64742-95-6)
content %	10-<20
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335 STOT SE 3, H336 Aquatic Chronic 2, H411

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
Registration number (REACH)	01-2119471843-32-XXXX
Index	---
EINECS, ELINCS, NLP	927-241-2 (REACH-IT List-No.)
CAS	---
content %	10-<20

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Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 3, H412
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Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	
Registration number (REACH)	01-2119458049-33-XXXX
Index	---
EINECS, ELINCS, NLP	919-446-0 (REACH-IT List-No.)
CAS	---
content %	1-<10
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 STOT RE 1, H372 (central nervous system) (as inhalation) Aquatic Chronic 2, H411

Propylene carbonate	
Registration number (REACH)	--
Index	607-194-00-1
EINECS, ELINCS, NLP	203-572-1
CAS	108-32-7
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Irrit. 2, H319

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 3.1/3.2 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.

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

Rinse the mouth thoroughly with water.
 Do not induce vomiting - give copious water to drink. Consult doctor immediately.

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.
 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

n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

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Water jet spray
CO2
Extinction powder
Sand

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 gases
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 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 inhalation, and contact with eyes or skin.

If applicable, caution - risk of slipping.

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

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

Prevent from entering drainage system.

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

6.3 Methods and material for containment and cleaning up

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

Do not wash away with water or watery cleaning agents.

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.

Keep away from sources of ignition - Do not smoke.

Take precautions against electrostatic charges.

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.

Observe special storage conditions.

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Not to be stored in gangways or stair wells.
 Store product closed and only in original packing.
 Protect from direct sunlight and warming.
 Store in a well ventilated 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):
 600 mg/m³

Chemical Name	Hydrocarbons, C9, aromatics	Content %:10- <20
WEL-TWA: 500 mg/m ³ (Aromatics)	WEL-STEL: ---	---
Monitoring procedures:	<ul style="list-style-type: none"> - Draeger - Hydrocarbons 2/a (81 03 581) - Draeger - Hydrocarbons 0,1%/c (81 03 571) - Compur - KITA-187 S (551 174) 	
BMGV: ---	Other information: ---	

Chemical Name	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Content %:10- <20
WEL-TWA: 800 mg/m ³	WEL-STEL: ---	---
Monitoring procedures:	<ul style="list-style-type: none"> - 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)	

Chemical Name	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	Content %:1- <10
WEL-TWA: 800 mg/m ³	WEL-STEL: ---	---
Monitoring procedures:	<ul style="list-style-type: none"> - 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)	

Chemical Name	Bitumen	Content %:
WEL-TWA: 5 mg/m ³ (Asphalt, petroleum fumes)	WEL-STEL: 10 mg/m ³ (Asphalt, petroleum fumes)	---
Monitoring procedures:	---	
BMGV: ---	Other information: ---	

Chemical Name	Calcium carbonate	Content %:
WEL-TWA: 4 mg/m ³ (respirable dust), 10 mg/m ³ (total inhalable dust)	WEL-STEL: ---	---
Monitoring procedures:	---	
BMGV: ---	Other information: ---	

Chemical Name	Oil mist, mineral	Content %:
WEL-TWA: 5 mg/m ³ (ACGIH)	WEL-STEL: 10 mg/m ³ (ACGIH)	---
Monitoring procedures:	<ul style="list-style-type: none"> - Draeger - Oil 10/a-P (67 28 371) - Draeger - Oil Mist 1/a (67 33 031) 	
BMGV: ---	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.

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** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

Hydrocarbons, C9, aromatics						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - inhalation	Long term, systemic effects	DNEL	32	mg/m ³	
Consumer	Human - dermal	Long term, systemic effects	DNEL	11	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	11	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	25	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	150	mg/m ³	

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - dermal	Long term, systemic effects	DNEL	300	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	900	mg/m ³	
Consumer	Human - oral	Long term, systemic effects	DNEL	300	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	300	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1500	mg/m ³	

Propylene carbonate						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - sporadic (intermittent) release		PNEC	9	mg/l	
	Environment - marine		PNEC	0,09	mg/l	
	Environment - sediment, marine		PNEC	0,083	mg/l	
	Environment - soil		PNEC	0,81	mg/l	
	Environment - freshwater		PNEC	0,9	mg/l	
	Environment - sediment, freshwater		PNEC	0,83	mg/l	
	Environment - sewage treatment plant		PNEC	7400	mg/l	
Consumer	Human - oral	Long term, systemic effects	DNEL	25	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	25	mg/kg	
Consumer	Human - inhalation	Long term, local effects	DNEL	10	mg/m ³	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	43,5	mg/m ³	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	176	mg/m ³	

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Workers / employees	Human - dermal	Long term, systemic effects	DNEL	50	mg/kg	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	20	mg/m ³	

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - oral	Long term, systemic effects	DNEL	26	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	26	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	71	mg/m ³	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	44	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	330	mg/m ³	

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:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Protective nitrile gloves (EN 374)

Minimum layer thickness in mm:

0,3

Permeation time (penetration time) in minutes:

> 480

Protective hand cream recommended.

The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.

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

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.

Gas mask filter A (EN 14387), code colour brown

At high concentrations:

Protective respirator with independent air supply.

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

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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:	Pastelike, Liquid
Colour:	Black
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	7,0 (20°C)
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	140 °C
Flash point:	27 °C (DIN 53213 (Pensky-Martens, closed cup))
Evaporation rate:	Not determined
Flammability (solid, gas):	n.a.
Lower explosive limit:	0,7 Vol-%
Upper explosive limit:	7,0 Vol-%
Vapour pressure:	4,6 hPa (20°C)
Vapour pressure:	30 hPa (50°C)
Vapour density (air = 1):	Not determined
Density:	1,02 g/ml (DIN 51757)
Bulk density:	Not determined
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	200 °C (Ignition temperature)
Auto-ignition temperature:	No
Decomposition temperature:	Not determined
Viscosity:	1700 mPas (20°C)
Explosive properties:	Product is not explosive. Possible build up of explosive/highly flammable vapour/air mixture.
Oxidising properties:	Not determined

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	41,9 %

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

Heating, open flame, ignition sources

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

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:						Repeated exposure may cause skin dryness or cracking.
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.

Hydrocarbons, C9, aromatics

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>3000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>3160	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	>5,693	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit		Slightly irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
Germ cell mutagenicity:						Negative
Carcinogenicity:						Negative
Reproductive toxicity:						Negative
Specific target organ toxicity - single exposure (STOT-SE):						May cause drowsiness or dizziness., May cause respiratory irritation.
Aspiration hazard:						Yes

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Symptoms:						respiratory distress, coughing, burning of the membranes of the nose and throat, drowsiness, dizziness, headaches, nausea, unconsciousness, fever, ear noises, drying of the skin.
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Hydrocarbons, C9-C10, 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)	Analogous conclusion
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	Analogous conclusion
Acute toxicity, by inhalation:	LC50	>4951	mg/m ³ /4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Analogous conclusion, Maximum achievable concentration.
Acute toxicity, by inhalation:	LC50	>54	mg/l/4h	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Mild irritant (Analogous conclusion)
Respiratory or skin sensitisation:				Guinea pig		Not sensitising (Analogous conclusion)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	No indications of such an effect.
Carcinogenicity:					OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	No indications of such an effect.
Reproductive toxicity:					OECD 414 (Prenatal Developmental Toxicity Study)	No indications of such an effect.
Specific target organ toxicity - single exposure (STOT-SE):						May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	No indications of such an effect.
Aspiration hazard:						Yes
Symptoms:						drowsiness, unconsciousness, heart/circulatory disorders, headaches, cramps, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting.

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>15000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>3400	mg/kg	Rat		

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Acute toxicity, by inhalation:	LC50	>13100	mg/m ³ /4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:					OECD 404 (Acute Dermal Irritation/Corrosion)	Analogous conclusion, Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:					OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant, Analogous conclusion
Reproductive toxicity (Effects on fertility):						Negative
Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Target organ(s): central nervous system
Aspiration hazard:						Yes
Symptoms:						drowsiness, abdominal pain, unconsciousness, vomiting, nausea
Symptoms:						drowsiness, fatigue
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:						Target organ(s): central nervous system

Propylene carbonate						
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	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Irritant
Respiratory or skin sensitisation:				Human being		Not sensitizing
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:					OECD 482 (Gen. Tox. - DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro)	Negative
Carcinogenicity:				Mouse	OECD 451 (Carcinogenicity Studies)	Negative
Reproductive toxicity:	NOAEL	1000	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Reproductive toxicity:	NOAEL	5000	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	No indications of such an effect.

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Specific target organ toxicity - single exposure (STOT-SE):						No
Specific target organ toxicity - repeated exposure (STOT-RE):						No
Aspiration hazard:						No
Symptoms:						breathing difficulties, headaches, gastrointestinal disturbances, dizziness, nausea
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOEL	>5000	mg/kg		OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOEC	100	mg/m ³		OECD 413 (Subchronic Inhalation Toxicity - 90-Day Study)	Dust, Mist

Bitumen						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		

Calcium carbonate						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by inhalation:						Mechanical irritation possible.
Serious eye damage/irritation:						Mechanical irritation possible.
Other information:						References

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
Toxicity to fish:							n.d.a.
Toxicity to daphnia:							n.d.a.
Toxicity to algae:							n.d.a.
Persistence and degradability:							n.d.a.
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.
Other information:							DOC-elimination degree (complexing organic substance) >= 80%/28d: n.a.

Hydrocarbons, C9, aromatics							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes

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Toxicity to fish:	LC50	96h	9,2	mg/l	Oncorhynchus tshawytscha	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EC50	48h	21,3	mg/l			
Toxicity to daphnia:	EC50	48h	3,2	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to algae:	ErL50	72h	2,9	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		28d	54-56	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
Persistence and degradability:		28d	78	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	
Persistence and degradability:		28d	88,8	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LL50	96h	>10- <30	mg/l	Oncorhynchus mykiss		
Toxicity to daphnia:	EL50	48h	>22- <46	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to algae:	EL50		>1000	mg/l	Pseudokirchneriella subcapitata		
Toxicity to algae:	NOELR	72h	<1	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		28d	89	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50		>1000	mg/l			
Water solubility:			~ 0,04	g/l			Insoluble20°C

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	10-30	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	

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Toxicity to fish:	NOELR	28d	0,13	mg/l	Oncorhynchus mykiss	QSAR	
Toxicity to daphnia:	EC50	48h	10-22	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to daphnia:	NOELR	21d	0,28	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
Toxicity to algae:	NOELR	72h	0,22-0,76	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to algae:	ErL50	72h	4,1-10	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		28d	75	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	

Propylene carbonate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	>1000	mg/l	Cyprinus caprio	92/69/EC	
Toxicity to daphnia:	EC50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to algae:	EC50	72h	>900	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:			83,5-87-7	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable ^{29d}
Bioaccumulative potential:	Log Pow		-0,48				Bioaccumulation is unlikely (LogPow < 1),, calculated value
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10	16h	25619	mg/l	Pseudomonas putida	DIN 38412 T.8	
Other information:	AOX		0	%			Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

Calcium carbonate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	>1000 0	mg/l	Oncorhynchus mykiss		
Toxicity to daphnia:	EC50	48h	>1000	mg/l	Daphnia magna		
Toxicity to algae:	EC50	72h	>200	mg/l	Desmodesmus subspicatus		
Water solubility:			0,014	g/l			

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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)
 08 01 11 waste paint and varnish containing organic solvents or other hazardous substances

Recommendation:

Sewage disposal shall be discouraged.
 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.
 Empty container completely.
 Uncontaminated packaging can be recycled.
 Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

UN number: 1139

Transport by road/by rail (ADR/RID)

UN proper shipping name: 
 UN 1139 COATING SOLUTION (SPECIAL PROVISION 640E)
 Transport hazard class(es): 3
 Packing group: III
 Classification code: F1
 LQ (ADR 2015): 5 L
 Environmental hazards: Not applicable
 Tunnel restriction code: D/E

Transport by sea (IMDG-code)

UN proper shipping name: 
 COATING SOLUTION
 Transport hazard class(es): 3
 Packing group: III
 EmS: F-E, S-E
 Marine Pollutant: n.a
 Environmental hazards: Not applicable

Transport by air (IATA)

UN proper shipping name: 
 Coating solution
 Transport hazard class(es): 3
 Packing group: III
 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 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.

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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:

Observe youth employment law (German regulation).

Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC): 40,5 %

Directive 2010/75/EU (VOC): 413,1 g/l

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 2, 3

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

Employee training in handling dangerous goods 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
Flam. Liq. 3, H226	Classification based on test data.
STOT SE 3, H336	Classification according to calculation procedure.
Aquatic Chronic 3, H412	Classification according to calculation procedure.
STOT RE 2, H373	Classification according to calculation procedure.

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).

H226 Flammable liquid and vapour.

H372 Causes damage to organs through prolonged or repeated exposure by inhalation.

H304 May be fatal if swallowed and enters airways.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Flam. Liq. — Flammable liquid

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

Aquatic Chronic — Hazardous to the aquatic environment - chronic

STOT RE — Specific target organ toxicity - repeated exposure

Asp. Tox. — Aspiration hazard

STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation

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)

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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

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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)
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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