according to Regulation (EC) No. 1907/2006

CUROX®M-312R



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 SDS Number:
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 Date of first issue: 20.07.2016

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

1.1 Product identifier

Trade name : CUROX[®]M-312R

Unique Formula Identifier

(UFI)

: H0P8-W07X-E00U-8VEA

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

Use of the Sub- : Hardener

stance/Mixture

1.3 Details of the supplier of the safety data sheet

Company : United Initiators GmbH

Dr.-Gustav-Adolph-Str. 3

82049 Pullach

Telephone : +49 / 89 / 74422 - 0

E-mail address of person

responsible for the SDS

: contact@united-in.com

1.4 Emergency telephone number

0800 000 7801 (toll-free, access from Germany only) +49 89 220 61012

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Organic peroxides, Type D H242: Heating may cause a fire.

Acute toxicity, Category 4 H302: Harmful if swallowed.

Acute toxicity, Category 4 H332: Harmful if inhaled.

Skin corrosion, Sub-category 1B H314: Causes severe skin burns and eye damage.

Serious eye damage, Category 1 H318: Causes serious eye damage.

Reproductive toxicity, Category 2 H361: Suspected of damaging fertility or the un-

born child.

Long-term (chronic) aquatic hazard, Cat-H412: Harmful to aquatic life with long lasting ef-

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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms









Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.

H242 Heating may cause a fire.

H302 + H332 Harmful if swallowed or if inhaled.
 H314 Causes severe skin burns and eye damage.
 H361 Suspected of damaging fertility or the unborn child.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P210 Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking.

P220 Keep/Store away from clothing/ strong acids, bases, heavy metal salts and other reducing substances /combustible materials.

P233 Keep container tightly closed.

P235 Keep cool.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P262 Do not get in eyes, on skin, or on clothing.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

_

Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON

CENTER/ doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P315 Get immediate medical advice/ attention.

P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.

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Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

Trimethylpentanediol isobutyrate (CAS-No. 6846-50-0)

2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide (CAS-No. 1338-23-4)

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Organic Peroxide

Liquid mixture

Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	Registration number		
Trimethylpentanediol isobutyrate	6846-50-0	Repr. 2; H361	>= 40 - < 45
	229-934-9	Aquatic Chronic 3;	
	01-2119451093-47	H412	
2-Butanone peroxide; Reaction	1338-23-4	Org. Perox. D; H242	>= 25 - < 30
mass of butane-2,2-diyl dihydrop-	700-954-4	Acute Tox. 4; H302	
eroxide and dioxydibutane-2,2-diyl	01-2119514691-43-	Acute Tox. 4; H332	
dihydroperoxide	0000	Skin Corr. 1B; H314	
, .		Eye Dam. 1; H318	
		Acute toxicity esti-	
		mate	

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Diacetone alcohol	123-42-2 204-626-7 603-016-00-1 01-2119473975-21	Acute oral toxicity: 500 mg/kg Acute inhalation toxicity (dust/mist): 1,5 mg/l Acute dermal toxicity: 2.500 mg/kg Eye Irrit. 2; H319 Repr. 2; H361 STOT SE 3; H335 (Respiratory system) specific concentration limit Eye Irrit. 2; H319 >= 10 %	>= 10 - < 15
Butanone	78-93-3 201-159-0 606-002-00-3 01-2119457290-43	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system) EUH066	>= 1 - < 5
Hydrogen peroxide	7722-84-1 231-765-0 01-2119485845-22	Ox. Liq. 1; H271 Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Corr. 1A; H314 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) Aquatic Chronic 3; H412 specific concentration limit Ox. Liq. 1; H271 >= 70 % Ox. Liq. 2; H272 50 - < 70 % Skin Corr. 1A; H314 >= 70 % Skin Corr. 1B; H314 50 - < 70 % Skin Irrit. 2; H315 35 - < 50 % Eye Dam. 1; H318 8 - < 50 % Eye Irrit. 2; H319 5 - < 8 %	>= 2,5 - < 3

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STOT SE 3; H335
>= 35 %
Aquatic Chronic 3;
H412
>= 63 %

Acute toxicity estimate

Acute oral toxicity:
500,0 mg/kg

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

Symptoms of poisoning may appear several hours later.

Call a physician immediately.

Protection of first-aiders : First Aid responders should pay attention to self-protection

and use the recommended protective clothing

If inhaled : Call a physician or poison control centre immediately.

If unconscious, place in recovery position and seek medical

advice.

Keep respiratory tract clear. Call a physician immediately.

If breathed in, move person into fresh air.

In case of skin contact : In case of contact, immediately flush skin with plenty of water

for at least 15 minutes while removing contaminated clothing

and shoes.

Wash contaminated clothing before re-use.

If on skin, rinse well with water.
If on clothes, remove clothes.
If symptoms persist, call a physician.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tis-

sue damage and blindness.

In the case of contact with eyes, rinse immediately with plenty

of water and seek medical advice.

Continue rinsing eyes during transport to hospital.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

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If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.

Do NOT induce vomiting.
Call a physician immediately.
Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Harmful if swallowed or if inhaled.

Causes serious eye damage.

Suspected of damaging fertility or the unborn child.

Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray jet

Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

Contact with incompatible materials or exposure to temperatures exceeding SADT may result in a self-accelerating de-

composition reaction with release of flammable vapors which

may auto-ignite.

The product burns violently.

Flash back possible over considerable distance. Vapours may form explosive mixtures with air.

The product will float on water and can be reignited on surface

water.

Cool closed containers exposed to fire with water spray.

5.3 Advice for firefighters

Special protective equipment :

for firefighters

Wear self-contained breathing apparatus for firefighting if nec-

essary. Use personal protective equipment.

Specific extinguishing meth-

ods

Do not use a solid water stream as it may scatter and spread

tire.

Remove undamaged containers from fire area if it is safe to do

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SO.

Use water spray to cool unopened containers.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

Remove all sources of ignition. Evacuate personnel to safe areas.

Follow safe handling advice and personal protective equip-

ment recommendations.

Beware of vapours accumulating to form explosive concentra-

tions. Vapours can accumulate in low areas.

Never return spills in original containers for re-use.

Treat recovered material as described in the section "Disposal

considerations".

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contact with incompatible substances can cause decomposi-

tion at or below SADT. Clear spills immediately.

Suppress (knock down) gases/vapours/mists with a water

spray jet.

To clean the floor and all objects contaminated by this materi-

al, use plenty of water.

Soak up with inert absorbent material. Isolate waste and do not reuse. Non-sparking tools should be used.

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to deter-

mine which regulations are applicable.

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6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE

CONTROLS/PERSONAL PROTECTION section.

Advice on safe handling : Do not swallow.

Do not breathe vapours/dust.

Avoid exposure - obtain special instructions before use.

Avoid contact with skin and eyes.

Avoid formation of aerosol.

Take precautionary measures against static discharges. Never return any product to the container from which it was

originally removed.

Provide sufficient air exchange and/or exhaust in work rooms.

Avoid confinement.

Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

Wash thoroughly after handling. For personal protection see section 8.

Protect from contamination.

Advice on protection against

fire and explosion

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from heat and sources of ignition. Use only explosion-proof

equipment. Keep away from combustible material.

Hygiene measures : Keep away from food and drink. When using do not eat or

drink. When using do not smoke. Wash hands before breaks

and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Avoid impurities (e.g. rust, dust, ash), risk of decomposition. Electrical installations / working materials must comply with the technological safety standards. Containers which are

opened must be carefully resealed and kept upright to prevent leakage. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Store in accordance

with the particular national regulations.

Advice on common storage : Keep away from strong acids, bases, heavy metal salts and

other reducing substances.

Storage class (TRGS 510) : 5.2, Organic peroxides and self-reacting hazardous materials

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Recommended storage tem- : < 30 °C

perature

age stability

Further information on stor- : No decomposition if stored normally.

7.3 Specific end use(s)

Specific use(s) For further information, refer to the product technical data

sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Diacetone alcohol	123-42-2	AGW	20 ppm	DE TRGS
			96 mg/m3	900
	Peak-limit: ex	cursion factor (categ	ory): 2;(l)	
	Further inform	ation: Skin absorption	on	
Butanone	78-93-3	STEL	300 ppm	2000/39/EC
			900 mg/m3	
	Further information: Indicative			
		TWA	200 ppm	2000/39/EC
			600 mg/m3	
	Further information: Indicative			
		AGW	200 ppm	DE TRGS
			600 mg/m3	900
	Peak-limit: excursion factor (category): 1;(I)			
	Further information: Skin absorption, When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
Butanone	78-93-3	2-butanone: 2 mg/l	Immediately after	TRGS 903
		(Urine)	exposure or after	
			working hours	

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health ef-	Value
			fects	
Trimethylpentanediol isobutyrate	Workers	Inhalation	Long-term systemic effects	17,62 mg/m3
	Workers	Skin contact	Long-term local ef-	5 mg/kg
			fects	bw/day
	Consumers	Inhalation	Long-term systemic	4,35 mg/m3

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	1		effects	
	Consumers	Skin contact	Long-term systemic	5 mg/kg
			effects	bw/day
	Consumers	Oral	Long-term systemic	5 mg/kg
			effects	bw/day
2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihy- droperoxide and diox- ydibutane-2,2-diyl dihydroperoxide	Workers	Inhalation	Long-term systemic effects	2,35 mg/m3
	Workers	Skin contact	Long-term systemic effects	1,33 mg/kg bw/day
	Workers	Inhalation	Acute systemic effects	7,05 mg/m3
Diacetone alcohol	Workers	Inhalation	Acute local effects	240 mg/m3
	Workers	Skin contact	Long-term systemic effects	9,4 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	66,4 mg/m3
	Workers	Inhalation	Long-term local effects	66,4 mg/m3
Butanone	Workers	Skin contact	Long-term systemic effects	1161 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	600 mg/m3
Hydrogen peroxide	Workers	Inhalation	Acute local effects	3,4 mg/m3
	Workers	Inhalation	Long-term local effects	1,4 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
2-Butanone peroxide; Reaction	Fresh water	0,0056 mg/l
mass of butane-2,2-diyl dihy-		
droperoxide and dioxydibutane-		
2,2-diyl dihydroperoxide		
	Marine water	0,00056 mg/l
	Intermittent use/release	0,056 mg/l
	Sewage treatment plant	1,2 mg/l
	Fresh water sediment	0,0876 mg/kg
	Marine sediment	0,00876 mg/kg
	Soil	0,0142 mg/kg
Trimethylpentanediol isobutyrate	Fresh water	0,014 mg/l
	Marine water	0,001 mg/l
	Fresh water sediment	5,29 mg/kg dry
		weight (d.w.)
	Marine sediment	0,529 mg/kg dry
		weight (d.w.)
	Soil	1,05 mg/kg dry
		weight (d.w.)

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	Sewage treatment plant	3 mg/l
2-Butanone peroxide; Reaction	Fresh water	0,0056 mg/l
mass of butane-2,2-diyl dihy-		
droperoxide and dioxydibutane-		
2,2-diyl dihydroperoxide		
	Marine water	0,00056 mg/l
	Intermittent use/release	0,056 mg/l
	Sewage treatment plant	1,2 mg/l
	Fresh water sediment	0,0876 mg/kg
	Marine sediment	0,00876 mg/kg
	Soil	0,0142 mg/kg
Diacetone alcohol	Fresh water	2 mg/l
	Marine water	0,2 mg/l
	Sewage treatment plant	82 mg/l
	Fresh water sediment	9,06 mg/kg dry
		weight (d.w.)
	Marine sediment	0,91 mg/kg dry
		weight (d.w.)
	Soil	0,63 mg/kg dry
		weight (d.w.)
Butanone	Fresh water	55,8 mg/l
	Marine water	55,8 mg/l
	Intermittent use/release	55,8 mg/l
	Sewage treatment plant	709 mg/l
	Fresh water sediment	284,7 mg/kg dry
		weight (d.w.)
	Soil	22,5 mg/kg
Hydrogen peroxide	Sewage treatment plant	4,66 mg/l
	Fresh water	0,0126 mg/l
	Marine sediment	0,047 mg/l
	Fresh water sediment	0,047 mg/l
	Marine water	0,0126 mg/l
	Soil	0,0023 mg/l

8.2 Exposure controls

Engineering measures

Minimize workplace exposure concentrations.

Personal protective equipment

Eye protection : Tightly fitting safety goggles

Please wear suitable protective goggles. Also wear face pro-

tection if there is a splash hazard.

Ensure that eyewash stations and safety showers are close

to the workstation location.

Please follow all applicable local/national requirements when selecting protective measures for a specific workplace.

Equipment should conform to EN 166

Hand protection

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Material : Nitrile rubber
Break through time : 30 min
Glove thickness : 0,40 mm

Directive : Equipment should conform to EN 374

Material : butyl-rubber
Break through time : 480 min
Glove thickness : 0,47 mm

Directive : Equipment should conform to EN 374

Remarks : The data about break through time/strength of material are

standard values! The exact break through time/strength of material has to be obtained from the producer of the protective glove. Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of

workday.

Skin and body protection : Select appropriate protective clothing based on chemical

resistance data and an assessment of the local exposure

potential.

Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, dis-

posable suits) to avoid exposed skin surfaces.

Wear as appropriate:

Flame retardant antistatic protective clothing.

Respiratory protection : In the case of dust or aerosol formation use respirator with an

approved filter.

Respirator with combination filter for vapour/particulate (EN

141)

Filter type : ABEK-filter

Protective measures : The type of protective equipment must be selected according

to the concentration and amount of the dangerous substance

at the specific workplace.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid

Colour : red

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Odour : characteristic

Odour Threshold : not determined

Melting point/range : < -25 °C

Boiling point/boiling range : Decomposition: Decomposes below the boiling point.

Flammability : Not applicable

Upper explosion limit / Upper

flammability limit

Upper explosion limit No data available

Lower explosion limit / Lower

flammability limit

Lower explosion limit

No data available

Flash point : 57 °C

Method: ISO 3679, closed cup

Auto-ignition temperature : not determined

Self-Accelerating decomposi-

tion temperature (SADT)

60 °C

Method: UN-Test H.4

SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a

self-accelerating decomposition reaction.

pH : 6,5

Viscosity

Viscosity, dynamic : 13,2 mPa.s (20 °C)

Viscosity, kinematic : not determined

Solubility(ies)

Water solubility : ca. 6,5 g/l (20 °C)

slightly soluble

Solubility in other solvents : Solvent: Phthalates

Description: completely miscible

Partition coefficient: n-

octanol/water

Not applicable

Vapour pressure : <1,5 hPa (25 °C)

(for a component of this mixture)

Relative density : not determined

Density : 1,01 g/cm3 (20 °C)

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Relative vapour density : not determined

9.2 Other information

Explosives : Not explosive

In use, may form flammable/explosive vapour-air mixture.

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Organic peroxide

Flammability (liquids) : Flammable liquid and vapour., Organic peroxide

Self-ignition The substance or mixture is not classified as pyrophoric.

Self-heating substances : Not applicable

The substance or mixture is not classified as self heating.

Substances and mixtures, which in contact with water,

emit flammable gases

The substance or mixture does not emit flammable gases in

contact with water.

Desensitised explosives : Not applicable

Refractive index 1,433 at 20 °C

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Protect from contamination.

Contact with incompatible substances can cause decomposi-

tion at or below SADT. Heat, flames and sparks. Avoid confinement.

10.5 Incompatible materials

Materials to avoid Accelerators, strong acids and bases, heavy metals and

heavy metal salts, reducing agents

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10.6 Hazardous decomposition products

Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if swallowed or if inhaled.

Product:

Acute oral toxicity : Acute toxicity estimate: 1.525 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: 4,57 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

Components:

Trimethylpentanediol isobutyrate:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Method: Expert judgement

Assessment: The substance or mixture has no acute oral tox-

icity

Acute inhalation toxicity : LCLo (Rat): > 0,12 mg/l

Exposure time: 6 h
Test atmosphere: vapour
Method: Expert judgement

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: No mortality observed at this dose.

Acute dermal toxicity : LD50 (Guinea pig): > 2.000 mg/kg

Method: Expert judgement

Assessment: The substance or mixture has no acute dermal

toxicity

2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg

Method: Expert judgement

Acute inhalation toxicity : Acute toxicity estimate: 1,5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

according to Regulation (EC) No. 1907/2006

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Method: Expert judgement

Assessment: The component/mixture is moderately toxic after

short term inhalation.

Remarks: Based on data from similar materials

Acute dermal toxicity : Acute toxicity estimate: 2.500 mg/kg

Method: Expert judgement

Diacetone alcohol:

Acute oral toxicity : LD50 (Rat): 3.002 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC0 (Rat, male and female): >= 7,6 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: No mortality observed at this dose.

Acute dermal toxicity : LD0 (Rat): > 1.875 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: No mortality observed at this dose.

Butanone:

Acute oral toxicity : LD50 (Rat): 2.193 mg/kg

Method: OECD Test Guideline 423

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg

Method: OECD Test Guideline 402

Remarks: Based on available data, the classification criteria

are not met.

Hydrogen peroxide:

Acute oral toxicity : Acute toxicity estimate: 500,0 mg/kg

Method: Converted acute toxicity point estimate

Assessment: The component/mixture is moderately toxic after

single ingestion.

Acute inhalation toxicity : LC50 (Rat): > 0,17 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The component/mixture is moderately toxic after

short term inhalation.

Remarks: Based on harmonised classification in EU regulation

according to Regulation (EC) No. 1907/2006

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1272/2008, Annex VI

Acute dermal toxicity : LD50 (Rabbit): > 6.500 mg/kg

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks : Extremely corrosive and destructive to tissue.

Components:

Trimethylpentanediol isobutyrate:

Species : Guinea pig Exposure time : 24 h

Result : No skin irritation

Remarks : Based on available data, the classification criteria are not met.

2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibu-

tane-2,2-diyl dihydroperoxide:

Species : Rabbit

Result : Causes burns.

Diacetone alcohol:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Butanone:

Species : Rabbit

Assessment : Repeated exposure may cause skin dryness or cracking.

Method : OECD Test Guideline 404

Result : No skin irritation

Hydrogen peroxide:

Result : Corrosive after 3 minutes or less of exposure

Remarks : Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks : May cause irreversible eye damage.

according to Regulation (EC) No. 1907/2006

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Components:

Trimethylpentanediol isobutyrate:

Species : Rabbit Exposure time : 24 h

Result : No eye irritation

2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide:

Result : Irreversible effects on the eye

Diacetone alcohol:

Species : Rabbit

Method : OECD Test Guideline 405

Result : Irritation to eyes, reversing within 21 days

Butanone:

Species : Rabbit

Method : OECD Test Guideline 405

Result : Eye irritation

Hydrogen peroxide:

Result : Irreversible effects on the eye

Remarks : May cause irreversible eye damage.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Trimethylpentanediol isobutyrate:

Species : Guinea pig

Result : Does not cause skin sensitisation.

2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide:

Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

Assessment : Harmful if swallowed., Harmful if inhaled.

according to Regulation (EC) No. 1907/2006

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Diacetone alcohol:

Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

Butanone:

Exposure routes : Skin contact Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified based on available information.

Components:

Trimethylpentanediol isobutyrate:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Test Type: Ames test

Method: Regulation (EC) No. 440/2008, Annex, B.13/14

(Ames test) Result: negative

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: negative

2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide:

Genotoxicity in vitro : Method: OECD Test Guideline 473

Result: negative

Method: OECD Test Guideline 471

Result: negative

Method: OECD Test Guideline 476

Result: negative

Diacetone alcohol:

Genotoxicity in vitro : Method: OECD Test Guideline 476

Result: negative

Method: OECD Test Guideline 471

Result: negative

according to Regulation (EC) No. 1907/2006

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Method: OECD Test Guideline 473

Result: negative

Genotoxicity in vivo : Remarks: Not classified due to data which are conclusive

although insufficient for classification.

Germ cell mutagenicity- As-

sessment

Tests on bacterial or mammalian cell cultures did not show

mutagenic effects.

Butanone:

Genotoxicity in vitro : Method: OECD Test Guideline 471

Result: negative

Method: OECD Test Guideline 476

Result: negative

Method: OECD Test Guideline 473

Result: negative

Genotoxicity in vivo : Species: Mouse

Application Route: Intraperitoneal Method: OECD Test Guideline 474

Result: negative

Hydrogen peroxide:

Genotoxicity in vitro : Test Type: Ames test

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse Result: negative

Carcinogenicity

Not classified based on available information.

Components:

2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide:

Remarks : This information is not available.

Diacetone alcohol:

Carcinogenicity - Assess-

ment

Weight of evidence does not support classification as a car-

cinogen

according to Regulation (EC) No. 1907/2006

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Hydrogen peroxide:

Carcinogenicity - Assess-

ment

Carcinogenicity classification not possible from current data.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Components:

Trimethylpentanediol isobutyrate:

Effects on foetal develop-

ment

Test Type: One-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 414

Result: negative

Reproductive toxicity - As-

sessment

Suspected of damaging fertility or the unborn child., Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide:

Effects on fertility : Species: Rat

Application Route: oral (gavage)

General Toxicity - Parent: NOAEL: 50 mg/kg body weight

Method: OECD Test Guideline 421

Result: negative

Diacetone alcohol:

Effects on fertility : Species: Rat

Application Route: oral (gavage)

General Toxicity - Parent: NOAEL: 300 mg/kg body weight General Toxicity F1: NOAEL: 300 mg/kg body weight

Method: OECD Test Guideline 422

Effects on foetal develop-

ment

Species: Rat

Application Route: inhalation (vapour)
General Toxicity Maternal: NOAEL: 4,106
Embryo-foetal toxicity: NOAEL: 12.292

Method: OECD Test Guideline 414

Reproductive toxicity - As-

sessment

Some evidence of adverse effects on sexual function and

fertility, and/or on development, based on animal experiments.

Butanone:

Effects on fertility : Species: Rat

Application Route: oral (drinking water)

General Toxicity - Parent: NOAEL: 10.000 mg/l

according to Regulation (EC) No. 1907/2006

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General Toxicity F1: NOAEL: 10.000 mg/l

Method: OECD Test Guideline 416

Remarks: Based on data from similar materials

Species: Rat

Application Route: oral (drinking water)

General Toxicity - Parent: LOAEL: 20.000 mg/l

Method: OECD Test Guideline 416

Remarks: Based on data from similar materials

Effects on foetal develop-

ment

Species: Rat

Application Route: Inhalation

General Toxicity Maternal: NOAEC: ca. 1.002 mg/kg body

weight

Teratogenicity: NOAEC Parent: ca. 1.002 mg/kg body weight

Method: OECD Test Guideline 414

Result: negative

STOT - single exposure

Not classified based on available information.

Components:

Diacetone alcohol:

Target Organs : Respiratory system

Assessment : May cause respiratory irritation.

Butanone:

Assessment : May cause drowsiness or dizziness.

Hydrogen peroxide:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide:

Species : Rat

NOAEL : 200 mg/kg Application Route : oral (gavage)

Exposure time : 28 d

Method : OECD Test Guideline 407

Diacetone alcohol:

according to Regulation (EC) No. 1907/2006

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 Species
 : Rat

 NOAEL
 : 1,04 mg/l

 LOAEL
 : 4,685 mg/l

Application Route : inhalation (vapour)

Exposure time : 6 w

Method : OECD Test Guideline 412

Species : Rat

NOAEL : 100 mg/kg Application Route : oral (gavage)

Method : OECD Test Guideline 422

Hydrogen peroxide:

Species : Mouse
Application Route : Ingestion
Exposure time : 90 d

Symptoms : No adverse effects

Aspiration toxicity

Not classified based on available information.

Components:

Trimethylpentanediol isobutyrate:

Not classified due to data which are conclusive although insufficient for classification.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components consid-

ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Further information

Product:

Remarks : Solvents may degrease the skin.

Components:

Trimethylpentanediol isobutyrate:

Remarks : No data available

according to Regulation (EC) No. 1907/2006

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SECTION 12: Ecological information

12.1 Toxicity

Components:

Trimethylpentanediol isobutyrate:

Toxicity to fish : NOEC (Fish): >= 6 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): >= 1,46 mg/l

Exposure time: 48 h

NOEC (Daphnia (water flea)): 0,7 mg/l

Exposure time: 21 d

Toxicity to algae/aquatic

plants

EC50 (Chlorella pyrenoidosa (algae)): > 7,49 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to daphnia and other

aquatic invertebrates (Chron-

ic toxicity)

LOEC: 0,7 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide:

Toxicity to fish : LC50 (Poecilia reticulata (guppy)): 44,2 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

NOEC (Poecilia reticulata (guppy)): 18 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 39 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

NOEC (Daphnia magna (Water flea)): 26,7 mg/l

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 5,6

mg/l

according to Regulation (EC) No. 1907/2006

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Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 2,1

ma/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (Bacteria): 48 mg/l

Exposure time: 0,5 h

Method: OECD Test Guideline 209

Diacetone alcohol:

Toxicity to fish : LC50 (Oryzias latipes (Orange-red killifish)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 1.000 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EbC50 (Pseudokirchneriella subcapitata (green algae)): >

1.000 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 1.000

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Butanone:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 2.993 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 308 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 2.029

mq/l

Exposure time: 96 h

Method: OECD Test Guideline 201

Toxicity to microorganisms : NOEC (Pseudomonas putida): 1.150 mg/l

Exposure time: 16 h

Method: DIN 38 412 Part 8

according to Regulation (EC) No. 1907/2006

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Hydrogen peroxide:

Toxicity to fish LC50 (Pimephales promelas (fathead minnow)): 16,4 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia pulex (Water flea)): 2,4 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

EC50 (Skeletonema costatum (marine diatom)): 1,38 mg/l

Exposure time: 72 h

NOEC (Skeletonema costatum (marine diatom)): 0,63 mg/l

Exposure time: 72 h

Toxicity to daphnia and other : aquatic invertebrates (Chron-

NOEC: 0,63 mg/l Exposure time: 21 d

ic toxicity)

Species: Daphnia magna (Water flea)

12.2 Persistence and degradability

Components:

Trimethylpentanediol isobutyrate:

Biodegradability Result: rapidly biodegradable

Exposure time: 28 d

Method: OECD Test Guideline 301B

2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibu-

tane-2,2-diyl dihydroperoxide:

Biodegradability Result: Readily biodegradable.

Method: OECD Test Guideline 301D

Diacetone alcohol:

Biodegradability Result: Readily biodegradable.

Method: OECD Test Guideline 301

Butanone:

Result: Readily biodegradable. Biodegradability

Method: OECD Test Guideline 301D

Hydrogen peroxide:

Biodegradability : Result: Readily biodegradable.

12.3 Bioaccumulative potential

Components:

Trimethylpentanediol isobutyrate:

according to Regulation (EC) No. 1907/2006

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Bioaccumulation : Species: Fish

Bioconcentration factor (BCF): 1,95

Partition coefficient: n-

octanol/water

log Pow: 4,91 (25 °C)

2-Butanone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide:

Partition coefficient: n-

octanol/water

: log Pow: < 0,3 (25 °C)

Diacetone alcohol:

Partition coefficient: n-

octanol/water

log Pow: -0,09 (20 °C)

Butanone:

Partition coefficient: n-

octanol/water

log Pow: 0,3 (40 °C)

Hydrogen peroxide:

Partition coefficient: n-

octanol/water

: log Pow: -1,57

Remarks: Calculation

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

This substance/mixture contains no components considered Assessment

> to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment The substance/mixture does not contain components consid-

> ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

12.7 Other adverse effects

Product:

according to Regulation (EC) No. 1907/2006

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Additional ecological infor-

mation

An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

Toxic to aquatic life.

Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

Do not burn, or use a cutting torch on, the empty drum.

Dispose of in accordance with local regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADN : UN 3105
ADR : UN 3105
RID : UN 3105
IMDG : UN 3105
IATA : UN 3105

14.2 UN proper shipping name

ADN : ORGANIC PEROXIDE TYPE D, LIQUID

(METHYL ETHYL KETONE PEROXIDE(S))

ADR : ORGANIC PEROXIDE TYPE D, LIQUID

(METHYL ETHYL KETONE PEROXIDE(S))

RID : ORGANIC PEROXIDE TYPE D, LIQUID

(METHYL ETHYL KETONE PEROXIDE(S))

IMDG : ORGANIC PEROXIDE TYPE D, LIQUID

(METHYL ETHYL KETONE PEROXIDE(S))

IATA : Organic peroxide type D, liquid

(Methyl ethyl ketone peroxide(s))

14.3 Transport hazard class(es)

according to Regulation (EC) No. 1907/2006

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ADN : 5.2
ADR : 5.2
RID : 5.2
IMDG : 5.2
IATA : 5.2

14.4 Packing group

ADN

Packing group : Not assigned by regulation

Classification Code : P1 Labels : 5.2

ADR

Packing group : Not assigned by regulation

Classification Code : P1 Labels : 5.2 Tunnel restriction code : (D)

RID

Packing group : Not assigned by regulation

Classification Code : P1
Hazard Identification Number : 539
Labels : 5.2

IMDG

Packing group : Not assigned by regulation

Labels : 5.2 EmS Code : F-J, S-R

IATA (Cargo)

Packing instruction (cargo : 570

aircraft)

Packing group : Not assigned by regulation

Labels : Organic Peroxides, Keep Away From Heat

IATA (Passenger)

Packing instruction (passen: 570

ger aircraft)

Packing group : Not assigned by regulation

Labels : Organic Peroxides, Keep Away From Heat

14.5 Environmental hazards

ADN

Environmentally hazardous : no

ADR

Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG

according to Regulation (EC) No. 1907/2006

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Marine pollutant : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mix-ture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) Conditions of restriction for the following entries should be considered:

Number on list 3

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

Not applicable

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

: Not applicable

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import

of dangerous chemicals

Not applicable

REACH - List of substances subject to authorisation

(Annex XIV)

Not applicable

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors

This product is regulated by Regulation (EU) 2019/1148: all suspi- Hydrogen peroxide (ANNEX I) cious transactions, and significant disappearances and thefts should be reported to the relevant national contact point. Please

see https://ec.europa.eu/home-affairs/sites/ homeaffairs/files/what-we-do/policies/crisis-and-terrorism/explosives/explosives-

precur-

sors/docs/list_of_competent_authorities_and_national_contact_po

ints_en.pdf
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of

major-accident hazards involving dangerous substances.

Quantity 1 Quantity 2

P6b SELF-REACTIVE 50 t 200 t

according to Regulation (EC) No. 1907/2006

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SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES

Water hazard class (Germa- : WGK 1 slightly hazardous to water

ny) Classification according to AwSV, Annex 1 (5.2)

Other regulations:

Gefahrgruppe nach DGUV 13 Vorschrift 13 (bisher BGV B4): II (German regulatory requirements)

The product is subject to the supply restrictions of the Ordinance on the Prohibition of Chemicals.

Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

The components of this product are reported in the following inventories:

TCSI (TW) : On the inventory, or in compliance with the inventory

TSCA (US) : All substances listed as active on the TSCA inventory

AllC (AU) : On the inventory, or in compliance with the inventory

DSL (CA) : All components of this product are on the Canadian DSL

KECI (KR) : On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of H-Statements

H225 : Highly flammable liquid and vapour.

H242 : Heating may cause a fire.

H271 : May cause fire or explosion; strong oxidizer.

H302 : Harmful if swallowed.

H314 : Causes severe skin burns and eye damage.

H318 : Causes serious eye damage. H319 : Causes serious eye irritation.

H332 : Harmful if inhaled.

according to Regulation (EC) No. 1907/2006

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H335 : May cause respiratory irritation. H336 : May cause drowsiness or dizziness.

H361 : Suspected of damaging fertility or the unborn child. H412 : Harmful to aquatic life with long lasting effects.

EUH066 : Repeated exposure may cause skin dryness or cracking.

Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Chronic : Long-term (chronic) aquatic hazard

Eye Dam. : Serious eye damage

Eye Irrit. : Eye irritation

Flam. Liq. : Flammable liquids

Org. Perox. : Organic peroxides

Ox. Liq. : Oxidizing liquids

Repr. : Reproductive toxicity

Skin Corr. : Skin corrosion

STOT SE : Specific target organ toxicity - single exposure

2000/39/EC : Europe. Commission Directive 2000/39/EC establishing a first

list of indicative occupational exposure limit values

DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.

TRGS 903 : TRGS 903 - Biological limit values

2000/39/EC / TWA : Limit Value - eight hours 2000/39/EC / STEL : Short term exposure limit DE TRGS 900 / AGW : Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS -Emergency Schedule: ENCS - Existing and New Chemical Substances (Japan): ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP -Good Laboratory Practice: IARC - International Agency for Research on Cancer: IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population: LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose): MARPOL -International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Re-

according to Regulation (EC) No. 1907/2006

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striction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information : This safety datasheet only contains information relating to

safety and does not replace any product information or prod-

uct specification.

These safety instructions also apply to empty packaging which

may still contain product residues.

Sources of key data used to compile the Safety Data

Sheet

Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-

cy, http://echa.europa.eu/

Classification of the mixture: Classification procedure:

Flam. Liq. 3	H226	Based on product data or assessment
Org. Perox. D	H242	Based on product data or assessment
Acute Tox. 4	H302	Calculation method
Acute Tox. 4	H332	Calculation method
Skin Corr. 1B	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Repr. 2	H361	Calculation method
Aquatic Chronic 3	H412	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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