

# SAFETY DATA SHEET according to regulation 1907/2006



Product name: **4020 Z-Prime**

Creation date: **18.11.2020**, Revision: **22.07.2021**, version: **2.0**

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

Product name  
4020 Z-Prime



<https://my.chemius.net/p/Oe9ezF/en/pd/en>

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

Relevant identified uses  
Corrosion protection agent

Uses advised against  
No information.

### 1.3 Details of the supplier of the safety data sheet

Supplier	Manufacturer
SILCO, D.O.O. Šentrupert 5 a 3303 Gomilsko, Slovenia +386 3 703 3180 n.cvilak@silco-automotive.com	SILCO, D.O.O. Šentrupert 5 a 3303 Gomilsko, Slovenia +386 3 703 3180 n.cvilak@silco-automotive.com

### 1.4 Emergency Telephone Number

Emergency  
112

Supplier  
+386 3 703 3180

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Aerosol 1; H222 Extremely flammable aerosol.

Aerosol 1; H229.1 Pressurised container: May burst if heated.

Asp. Tox. 1; H304 May be fatal if swallowed and enters airways.

Skin Irrit. 2; H315 Causes skin irritation.

Eye Irrit. 2; H319 Causes serious eye irritation.

STOT SE 3; H335 May cause respiratory irritation.

STOT SE 3; H336 May cause drowsiness or dizziness.

STOT RE 2; H373 May cause damage to organs through prolonged or repeated exposure.

Aquatic Chronic 2; H411 Toxic to aquatic life with long lasting effects.

### 2.2 Label elements

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

**Signal word: Danger**

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

EUH208 Contains 2-butanon oksim. May produce an allergic reaction.

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P260 Do not breathe mist/vapours/spray.

P273 Avoid release to the environment.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/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.

P314 Get medical advice/attention if you feel unwell.

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

P501 Dispose of contents/container in accordance with national regulation.

**Contains:**

acetone

reaction mass of ethylbenzene and xylene

hydrocarbons C9 aromatics

**2.3 Other hazards**

Vapors can form an explosive mixture with air.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

For mixtures see 3.2.

**3.2 Mixtures**

NAME	CAS EC INDEX REACH	%	CLASSIFICATION ACCORDING TO REGULATION (EC) NO 1272/2008 (CLP)	SPECIFIC CONC. LIMITS	NOTES FOR SUBSTANCES
acetone	67-64-1 200-662-2 606-001-00-8 01-2119471330-49	10-25	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	/	/
zinc powder - zinc dust (stabilized)	7440-66-6 231-175-3 030-001-01-9 01-2119467174-37	10-<25	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	/	/

isobutane	75-28-5 200-857-2 601-004-00-0 01-2119485395-27	10-25	Flam. Gas 1; H220 Press. Gas; H280	/	C, S
reaction mass of ethylbenzene and xylene	- 905-588-0 - 01-2119486136-34	10-<15	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332 STOT SE 3; H335 STOT RE 2; H373	STOT RE 2; H373; C ≥ 10%	/
hydrocarbons C9 aromatics	- 918-668-5 - 01-2119455851-35	10-<15	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H335 STOT SE 3; H336 Aquatic Chronic 2; H411	/	/
reaction mass of ethylbenzene and m-xylene and p-xylene	- 905-562-9 - 01-2119555267-33	2,5-<10	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332 STOT SE 3; H335 STOT RE 2; H373	/	/
propane	74-98-6 200-827-9 601-003-00-5 01-2119486944-21	2,5-10	Flam. Gas 1; H220 Press. Gas; H280	/	U
xylene	1330-20-7 215-535-7 601-022-00-9 01-2119488216-32	2,5-<10	Flam. Liq. 3; H226 Acute Tox. 4; H312 Skin Irrit. 2; H315 Acute Tox. 4; H332	/	C
2-butanon oksim	96-29-7 202-496-6 616-014-00-0 01-2119539477-28	<1	Acute Tox. 4; H312 Skin Sens. 1; H317 Eye Dam. 1; H318 Carc. 2; H351	/	/

### Notes for substances

C	Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers.  In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
S	This substance may not require a label according to Article 17 (see Section 1.3 of Annex I) (Table 3).
U	When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned: Press. Gas (Comp.) Press. Gas (Liq.) Press. Gas (Ref. Liq.) Press. Gas (Diss.) Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).

## SECTION 4: FIRST AID MEASURES

### 4.1 First aid measures

#### General notes

When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician. Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency.

**Following inhalation**

Remove patient to fresh air - move out of dangerous area. Keep at rest in a position comfortable for breathing. Victim should rest in a warm place. If symptoms develop and persist, seek medical attention.

**Following skin contact**

Immediately remove contaminated clothing. Wash affected skin areas thoroughly with plenty of water and soap. If symptoms develop and persist, seek medical attention. Wash contaminated clothes and shoes before reuse.

**Following eye contact**

Immediately flush eyes with running water, keeping eyelids apart. If irritation does not stop, seek professional medical treatment!

**Following ingestion**

Not likely. Do not induce vomiting! Immediately consult a doctor.

**4.2 Most important symptoms and effects, both acute and delayed****Following inhalation**

Vapours may cause drowsiness and dizziness. Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation. Coughing, sneezing, nasal discharge, labored breathing. Symptoms include: headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, unconsciousness.

**Following skin contact**

Itching, redness, pain.

**Following eye contact**

Strongly irritates the eyes. Redness, tearing, pain.

**Following ingestion**

Not likely. May cause nausea/vomiting and diarrhea. May cause irritation of the digestive tract. Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area. Aspiration into the lungs causes coughing, shortness of breath and may lead to chemical pneumonia.

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

Treat symptomatically.

**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media****Suitable extinguishing media**

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam. Extinguish large fires with water spray or alcohol-resistant foam.

**Unsuitable extinguishing media**

Full water jet.

**5.2 Special hazards arising from the substance or mixture****Hazardous combustion products**

In case of a fire toxic gases can be generated; do not inhale gases/smoke. In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>).

**5.3 Advice for firefighters****Protective actions**

In case of fire evacuate the area. In case of fire or heating do not breathe fumes/vapours. In case of fire aerosols can explode and be propelled to considerable distances in different directions. Cool containers at risk with water spray. If possible remove containers from endangered area. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters**

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves)

(EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

#### Additional information

Contaminated firefighting water must be disposed of in accordance with the regulations; do not allow to reach the sewage system.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Precautionary measures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

Emergency procedures

Prevent access to unprotected personnel. Avoid contact with skin and eyes. Do not breathe vapour or mist.

For emergency responders

Use personal protective equipment.

### 6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems and ground water. If accidental large entry into water or ground occurs, inform responsible authorities.

### 6.3 Methods and material for containment and cleaning up

For containment

Stem the spill if this does not pose risks.

For cleaning up

Ventilate the premises. Collect the spray cans and hand them over to an authorized waste disposal contractor. Release of liquid because of damaged aerosol can (release of large quantities): In case of bigger spill, dam the spillage, pump the liquid into appropriate labelled containers, absorb a residue with absorbent material and dispose of according to local regulations. Do not absorb spillage with sawdust or other combustible material. Clean residue from spill site. Dispose in accordance with applicable regulations (see Section 13).

**OTHER INFORMATION**

No information.

### 6.4 Reference to other sections

See also sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Pressurized container; protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Take precautionary measures against static discharges. Do not spray on a naked flame or incandescent material. Use spark-proof tools.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Avoid release to the environment.

**Other measures**

No information.

**Advice on general occupational hygiene**

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes. Do not breathe vapours/mist. Use personal protective equipment.

**7.2 Conditions for safe storage, including any incompatibilities****Technical measures and storage conditions**

Keep in cool and well ventilated area. Protect from open fire, heat and direct sunlight. Keep in well closed containers. Keep away from sources of ignition. Keep away from oxidising substances. Keep away from food, drink and animal feeding stuffs.

**Packaging materials**

The original container of producer.

**Requirements for storage rooms and vessels**

Do not store in unlabelled containers.

**Storage class**

No information.

**Further information on storage conditions**

No information.

**7.3 Specific end use(s)****Recommendations**

No information.

**Industrial sector specific solutions**

No information.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters****Occupational Exposure limit values**

NAME	MG/M <sup>3</sup>	ML/M <sup>3</sup>	SHORT-TERM VALUE MG/M <sup>3</sup>	SHORT-TERM VALUE ML/M <sup>3</sup>	REMARK	BIOLOGICAL TOLERANCE VALUES
Xylene, o-,m-,p- or mixed isomers (1330-20-7)	220	50	441	100	Sk, BMGV	650 mmol methyl hippuric acid/mol creatinine in urine - Post shift
Acetone (67-64-1)	1210	500	3620	1500	/	/

**Information on monitoring procedures**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 482:2012+A1:2015 Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents.

**DNEL/DMEL values****For product**

No information.

**For components**

NAME	TYPE	EXPOSURE ROUTE	EXP. FREQUENCY	REMARK	VALUE
acetone	Worker	inhalation	short term systemic effects	/	1210 mg/m <sup>3</sup>
acetone	Worker	dermal	long term systemic effects	/	186 mg/kg bw/day
acetone	Consumer	oral	long term systemic effects	/	62 mg/kg bw/day

acetone	Consumer	inhalation	long term systemic effects	/	200 mg/m <sup>3</sup>
acetone	Consumer	inhalation	short term local effects	/	2420 mg/m <sup>3</sup>
acetone	Consumer	dermal	long term systemic effects	/	62 mg/kg bw/day
zinc powder - zinc dust (stabilized)	Worker	dermal	long term systemic effects	/	83.3 mg/kg/day
zinc powder - zinc dust (stabilized)	Worker	inhalation	long term systemic effects	/	5 mg/m <sup>3</sup>
zinc powder - zinc dust (stabilized)	Consumer	oral	long term systemic effects	/	83 mg/kg/day
zinc powder - zinc dust (stabilized)	Consumer	inhalation	long term systemic effects	/	2.5 mg/m <sup>3</sup>
zinc powder - zinc dust (stabilized)	Consumer	dermal	long term systemic effects	/	83 mg/kg/day
hydrocarbons C9 aromatics	Worker	dermal	long term systemic effects	/	25 mg/kg
hydrocarbons C9 aromatics	Worker	inhalation	long term systemic effects	/	150 mg/m <sup>3</sup>
hydrocarbons C9 aromatics	Consumer	oral	long term systemic effects	/	11 mg/kg
hydrocarbons C9 aromatics	Consumer	dermal	long term systemic effects	/	11 mg/kg
hydrocarbons C9 aromatics	Consumer	inhalation	long term systemic effects	/	32 mg/m <sup>3</sup>

#### PNEC values

##### For product

No information.

##### For components

NAME	EXPOSURE ROUTE	REMARK	VALUE
acetone	marine water	/	1.06 mg/L
acetone	fresh water	/	10.6 mg/L
acetone	fresh water sediment	dry weight	30.4 mg/kg
acetone	marine water sediment	dry weight	3.04 mg/kg
acetone	water, intermittent release	fresh water	21 mg/L
acetone	water treatment plant	/	100 mg/L
acetone	soil	dry weight	29.5 mg/kg
zinc powder - zinc dust (stabilized)	fresh water	/	20.6 µg/l
zinc powder - zinc dust (stabilized)	marine water	/	6.1 µg/L
zinc powder - zinc dust (stabilized)	fresh water sediment	dry weight	117.8 mg/kg
zinc powder - zinc dust (stabilized)	marine water sediment	dry weight	56.5 mg/kg
zinc powder - zinc dust (stabilized)	soil	dry weight	35.6 mg/kg
zinc powder - zinc dust (stabilized)	water treatment plant	/	100 µg/L

## 8.2 Exposure controls

### Appropriate engineering control

#### Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not breathe vapours/aerosols. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes. Keep away from foodstuffs, beverages and feed. Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation.

#### Structural measures to prevent exposure

No information.

#### Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse. Keep eyewash bottles or personal eyewash

units and emergency showers available. If this product contains ingredients with exposure limits, personal, workplace atmosphere monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protection.

#### Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration.

#### Personal protective equipment

##### Eye and face protection

Tight fitting protective goggles (EN 166).

##### Hand protection

In case of prolonged exposure, wear protective gloves (EN 374). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The penetration time is determined by the protective glove manufacturer and must be observed.

#### Appropriate materials

##### Skin protection

Cotton protective clothing and shoes that cover the entire foot (EN ISO 20345). Protective antistatic clothing EN 1149 (1:2006, 2:1998 and 3:2004, 5:2008), protective antistatic shoes (EN 20345:2012). Choose body protection according to the activity and possible exposure.

##### Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. At elevated concentrations of vapours/aerosols in the air wear a mask (EN 140) with filter A2-P2 (EN 14387). For dust/gas/ vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard EN 137, EN 138.

##### Thermal hazards

No information.

#### Environmental exposure controls

##### Substance/mixture related measures to prevent exposure

No information.

##### Instruction measures to prevent exposure

No information.

##### Organisational measures to prevent exposure

No information.

##### Technical measures to prevent exposure

Prevent exposure in the environment.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Physical state

liquid - aerosol

#### Colour

gray

#### Odour

characteristic

#### Important health, safety and environmental information

Odour threshold	No information.
pH	No information.
Melting point/Freezing point	No information.
Initial boiling point/boiling range	No information.
Flash point	No information.
Evaporation rate	No information.
Flammability (solid, gas)	No information.



Explosion limits (vol%)	2.1 – 13 vol % (acetone) 1.5 – 10.9 vol % (propellant)
Vapour pressure	3 hPa at 20 °C
Vapour density	No information.
Density / weight	Density: 1.744 kg/L at 20 °C (data refers to the liquid portion of the product)
Solubility	No information.
Partition coefficient	No information.
Auto-ignition temperature	No information.
Decomposition temperature	No information.
Viscosity	No information.
Explosive properties	No information.
Oxidising properties	No information.

## 9.2 OTHER INFORMATION

Weight organic solvents	66 % (VOC) 629 g/l (VOC)
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## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

### 10.3 Possibility of hazardous reactions

The product is stable under recommended storage and handling conditions. Vapours and air can form flammable or explosive mixtures.

### 10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not expose to heat and direct sunlight. Do not store above 50°C.

### 10.5 Incompatible materials

Strong reducing agents.  
Oxidants. Halogenated compounds. Alkali metal. Ethanolamine. Hydrogen peroxide. Attacks many plastics and rubbers.  
Peroxide.

### 10.6 Hazardous decomposition products

In case of fire/explosion vapours/gases that pose a health hazard are released.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**(a) Acute toxicity****For components**

NAME	EXPOSURE ROUTE	TYPE	SPECIES	TIME	VALUE	METHOD	REMARK
acetone	oral	LD <sub>50</sub>	rat	/	5800 mg/kg	/	/
acetone	dermal	LD <sub>50</sub>	rabbit	/	> 15800 mg/kg	/	/
acetone	inhalation	LC <sub>50</sub>	rat	/	76 mg/l	/	/
hydrocarbons C9 aromatics	oral	LD <sub>50</sub>	rat	/	> 2000 mg/kg	/	/
hydrocarbons C9 aromatics	dermal	LD <sub>50</sub>	rabbit	/	> 2000 mg/kg	/	/
xylene	oral	LD <sub>50</sub>	rat	/	2000 - 5000 mg/kg	/	/
xylene	inhalation	LC <sub>50</sub>	rat	4 h	10 - 20 mg/l	/	/
2-butanon oksim	dermal	LD <sub>50</sub>	rat	/	< 2000 mg/kg	/	/
2-butanon oksim	inhalation	LC <sub>50</sub>	rat	4 h	20 mg/l	/	/
2-butanon oksim	oral	LD <sub>50</sub>	rat	/	3700 mg/kg	/	/

**Additional information**

The product is not classified for acute toxicity.

**(b) Skin corrosion/irritation****For components**

NAME	SPECIES	TIME	RESULT	METHOD	REMARK
acetone	guinea pig	/	Non-irritant.	/	/

**Additional information**

Causes skin irritation.

**(c) Serious eye damage/irritation****For components**

NAME	EXPOSURE ROUTE	SPECIES	TIME	RESULT	METHOD	REMARK
acetone	/	rabbit	/	Irritating to eyes.	OECD 405	/
acetone	/	rabbit	/	Irritates the eyes. The occurrence of corneal injuries is possible.	OECD 405	/
hydrocarbons C9 aromatics	/	/	/	May cause irritation.	/	/

**Additional information**

Causes serious eye irritation.

**(d) Respiratory or skin sensitisation****For components**

NAME	EXPOSURE ROUTE	SPECIES	TIME	RESULT	METHOD	REMARK
acetone	/	guinea pig	/	Non sensitising.	OECD 406	/

**Additional information**

It contains at least one ingredient that can cause sensitisation. Can cause allergic reaction.

**(e) (Germ cell) mutagenicity****For components**

NAME	TYPE	SPECIES	TIME	RESULT	METHOD	REMARK
acetone	/	Bacteria	/	The tests did not show mutagenic effects	/	/
acetone	/	Cell: Mammalian-Animal	/	The tests did not show mutagenic effects	/	/
acetone	in-vitro mutagenicity	/	/	Negative.	OECD 473	Chromosome aberration assay
acetone	in-vitro mutagenicity	Cell: Mammalian-Animal	/	Negative.	OECD 476	/

acetone	in-vitro mutagenicity	Bacteria	/	Negative.	OECD 471	/
acetone	in-vivo mutagenicity	mouse	/	Negative.	The micronucleus test	/
hydrocarbons C9 aromatics	/	/	/	Negative.	/	/
xylene	/	/	/	Not mutagenic.	/	/

**(f) Carcinogenicity**

For components

NAME	EXPOSURE ROUTE	TYPE	SPECIES	TIME	VALUE	RESULT
acetone	/	/	/	/	/	Animal testing did not show any carcinogenic effects.
acetone	dermal	/	mouse	/	/	negative
hydrocarbons C9 aromatics	/	/	/	/	/	Not carcinogenic.

**(g) Reproductive toxicity**

For components

NAME	TYPE	SPECIES	TIME	VALUE	RESULT	METHOD	REMARK
acetone	/	/	/	/	Animal testing did not show any effects on fertility.	/	/
acetone	/	rat	/	/	Negative.	OECD 414	/
xylene	/	/	/	/	Not toxic for reproduction.	/	/
xylene	/	/	/	/	not teratogenic	/	/

**Summary of evaluation of the CMR properties**

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

**(h) STOT-single exposure**

For components

NAME	EXPOSURE ROUTE	TYPE	SPECIES	TIME	ORGAN	VALUE	RESULT	METHOD	EXPOSURE	REMARK
acetone	/	/	/	/	/	/	May cause drowsiness or dizziness.	/	/	/
hydrocarbons C9 aromatics	inhalation	/	/	/	/	/	May cause respiratory irritation.	/	/	/

**Additional information**

May cause drowsiness or dizziness. May cause respiratory irritation.

**(i) STOT-repeated exposure**

For components

NAME	EXPOSURE ROUTE	TYPE	SPECIES	TIME	ORGAN	VALUE	RESULT	METHOD	EXPOSURE	REMARK
acetone	dermal	-	/	/	/	/	Repeated exposure may cause dry and cracked skin.	/	/	/
acetone	oral	NOAEL	rat	90 days	/	900 mg/kg bw/day	/	/	/	/
acetone	inhalation	NOAEC	rat	/	/	22500 mg/m <sup>3</sup>	/	/	/	/
acetone	inhalation	/	human	/	/	/	Headache, dizziness, fatigue, nausea and vomiting.	/	/	excessive exposure to vapors

acetone	dermal	/	human	/	/	/	Repeated or prolonged exposure may cause dermatitis.	/	/	/
acetone	inhalation	-	human	/	Nasal inner lining	/	Symptoms: inflammation of the mucous membranes.	/	/	/

**Additional information**

May cause damage to organs through prolonged or repeated exposure.

**(j) Aspiration hazard**

No information.

**Additional information**

May be fatal if swallowed and enters airways.

**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity****Acute (short-term) toxicity****For components**

NAME	TYPE	VALUE	EXPOSURE TIME	SPECIES	ORGANISM	METHOD	REMARK
acetone	LC <sub>50</sub>	5540 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	/	/
acetone	LC <sub>50</sub>	11000 mg/L	96	fish	<i>Alburnus alburnus</i>	/	/
acetone	NOEC	430 mg/L	96 h	algae	/	/	/
acetone	/	1000 mg/L	30 min	bacteria	Activated sludge	OECD 209	/
hydrocarbons C9 aromatics	LC <sub>50</sub>	9.22 mg/L	96 h	fish	/	/	/
hydrocarbons C9 aromatics	NOELR	1 mg/L	72 h	algae	<i>Pseudokirchneriella subcapitata</i>	/	/
reaction mass of ethylbenzene and m-xylene and p-xylene	LC <sub>10</sub>	> 1.3 mg/L	/	fish	/	/	/
xylene	EC <sub>50</sub>	1 mg/L	48 h	crustacea	<i>Daphnia magna</i>	/	/
xylene	LC <sub>50</sub>	16.9 - 34.7 mg/L	96 h	fish	/	/	/

**Chronic (long-term) toxicity****For components**

NAME	TYPE	VALUE	EXPOSURE TIME	SPECIES	ORGANISM	METHOD	REMARK
acetone	NOEC	2212 mg/l	28 days	crustacea	<i>Daphnia pulex</i>	/	/
xylene	NOEC	> 1.3 mg/l	56 days	fish	/	/	/
xylene	NOEC	0.96 mg/l	7 days	crustacea	<i>Daphnia magna</i>	/	/

**12.2 Persistence and degradability****Abiotic degradation, physical- and photo-chemical elimination****For components**

NAME	ENVIRONMENT	TYPE / METHOD	HALF TIME	EVALUATION	METHOD	REMARK
acetone	water	/	/	Degraded by hydrolysis.	/	/

**Biodegradation****For components**

NAME	TYPE	RATE	TIME	EVALUATION	METHOD	REMARK
acetone	biodegradability	91	28 days	rapidly biodegradable	OECD 301B	/
acetone	BOD	1900 mg/g	5 days	/	/	/
acetone	COD	2100 mg/g	/	/	/	/
hydrocarbons C9 aromatics	/	78 %	28 days	readily biodegradable	/	/
xylene	-	/	/	readily biodegradable	/	/

### 12.3 Bioaccumulative potential

#### Partition coefficient

##### For components

NAME	MEDIA	VALUE	TEMPERATURE	PH	CONCENTRATION	METHOD
acetone	Octanol-water (log Pow)	-0.24	/	/	/	/

#### Bioconcentration factor (BCF)

##### For components

NAME	SPECIES	ORGANISM	VALUE	DURATION	EVALUATION	METHOD	REMARK
acetone	BCF	/	< 10	/	/	/	/
xylene	BCF	/	25.9	/	Low bioaccumulation potential.	/	/

### 12.4 Mobility in soil

#### Known or predicted distribution to environmental compartments

No information.

#### Surface tension

No information.

#### Adsorption/Desorption

No information.

### 12.5 Results of PBT and vPvB assessment

No evaluation.

### 12.6 Other adverse effects

No information.

### 12.7 Additional information

#### For product

Toxic to aquatic organisms: may cause long-term adverse effects in the aquatic environment. Water hazard class (WGK): 3 (Self-assessment), very hazardous for water. Do not allow to reach ground water, water courses or sewage system.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product / Packaging disposal

##### Waste chemical

Do not allow product to reach drains/sewage systems. Dispose of in accordance with applicable waste disposal

regulation. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Product and container must be disposed of safely.

#### Waste codes / waste designations according to LoW

16 05 04\* - gases in pressure containers (including halons) containing dangerous substances

#### Packaging

Uncleaned containers should not be perforated, cut or welded. Dispose of in accordance with applicable waste disposal regulation. Pressurized container. Do not pierce or burn, even after use. Dispose of in accordance with applicable waste disposal regulation. Deliver completely emptied containers to approved waste disposal authorities.

#### Waste codes / waste designations according to LoW

15 01 11\* - metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers

#### Waste treatment-relevant information

No information.









#### Sewage disposal-relevant information

No information.

#### Other disposal recommendations

No information.

## SECTION 14: TRANSPORT INFORMATION

ADR/RID	IMDG	IATA	ADN
14.1 UN number			
UN 1950	UN 1950	UN 1950	UN 1950
14.2 UN proper shipping name			
AEROSOLS, <i>flammable</i>	AEROSOLS, <i>flammable</i> (zinc powder - zinc dust (stabilized))	AEROSOLS, <i>flammable</i>	AEROSOLS, <i>flammable</i>
14.3 Transport hazard class(es)			
2	2	2	2
			
			
14.4 Packing group			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.5 Environmental hazards			
YES	Marine pollutant	YES	YES
14.6 Special precautions for user			

Limited quantities 1 L Transport category 2 Tunnel restriction code (D)	Limited quantities 1 L EmS F-D, S-U Special provisions 190, 327, 344, 625 Packing Instructions P207, LP200 Special packing provisions PP87, RR6, L2	Limited Quantity Packing Instructions Y203 Limited Quantity Net Qty 30 kg G Passenger Packing Instruction Packing Instructions 203 Passenger Packing Instruction Net Qty 25 kg Special provisions A145, A167, A802	Limited quantities 1 L
<b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>			
Goods may not be carried in bulk in bulk containers, containers or vehicles.	Goods may not be carried in bulk in bulk containers, containers or vehicles.	Not given/not applicable	Not given/not applicable

## SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)(including last amendment Commission Regulation (EU) 2015/830)
- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)  
not applicable

Regulation EC 648/2004 on detergents

No information.

Special instructions

No information.

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16: OTHER INFORMATION

### Indication of changes

1.2 Relevant identified uses of the substance or mixture and uses advised against 2.1 Classification of the substance or mixture 2.2 Label elements 2.3 Other hazards 3.2 Mixtures 4.1 First aid measures 4.2 Most important symptoms and effects, both acute and delayed 4.3 Indication of any immediate medical attention and special treatment needed 5.1 Extinguishing media 5.2 Special hazards arising from the substance or mixture 5.3 Advice for firefighters 6.1 Personal precautions, protective equipment and emergency procedures 6.3 Methods and material for containment and cleaning up 7.1 Precautions for safe handling 7.2 Conditions for safe storage, including any incompatibilities 8.1 Control parameters 8.2 Exposure controls 9.1 Information on basic physical and chemical properties 9.2 OTHER INFORMATION 10.1 Reactivity 10.3 Possibility of hazardous reactions 10.4 Conditions to avoid 10.5 Incompatible materials 10.6 Hazardous decomposition products 11.1 Information on toxicological effects 12.1 Toxicity 12.2 Persistence and degradability 12.3 Bioaccumulative potential 12.4 Mobility in soil 12.7 Additional information 13.1 Waste treatment methods 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

### Key literature references and sources for data

No information.

### Abbreviations and acronyms

ATE - Acute Toxicity Estimate

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
CEN - European Committee for Standardisation  
C&L - Classification and Labelling  
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008  
CAS# - Chemical Abstracts Service number  
CMR - Carcinogen, Mutagen, or Reproductive Toxicant  
CSA - Chemical Safety Assessment  
CSR - Chemical Safety Report  
DMEL - Derived Minimal Effect Level  
DNEL - Derived No Effect Level  
DPD - Dangerous Preparations Directive 1999/45/EC  
DSD - Dangerous Substances Directive 67/548/EEC  
DU - Downstream User  
EC - European Community  
ECHA - European Chemicals Agency  
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)  
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)  
EEC - European Economic Community  
EINECS - European Inventory of Existing Commercial Substances  
ELINCS - European List of notified Chemical Substances  
EN - European Standard  
EQS - Environmental Quality Standard  
EU - European Union  
Euphrac - European Phrase Catalogue  
EWC - European Waste Catalogue (replaced by LoW – see below)  
GES - Generic Exposure Scenario  
GHS - Globally Harmonized System  
IATA - International Air Transport Association  
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air  
IMDG - International Maritime Dangerous Goods  
IMSBC - International Maritime Solid Bulk Cargoes  
IT - Information Technology  
IUCLID - International Uniform Chemical Information Database  
IUPAC - International Union for Pure Applied Chemistry  
JRC - Joint Research Centre  
Kow - octanol-water partition coefficient  
LC50 - Lethal Concentration to 50 % of a test population  
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)  
LE - Legal Entity  
LoW - List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)  
LR - Lead Registrant  
M/I - Manufacturer / Importer  
MS - Member States  
MSDS - Material Safety Data Sheet  
OC - Operational Conditions  
OECD - Organization for Economic Co-operation and Development  
OEL - Occupational Exposure Limit  
OJ - Official Journal  
OR - Only Representative  
OSHA - European Agency for Safety and Health at work  
PBT - Persistent, Bioaccumulative and Toxic substance  
PEC - Predicted Effect Concentration  
PNEC(s) - Predicted No Effect Concentration(s)  
PPE - Personal Protection Equipment  
(Q)SAR - Qualitative Structure Activity Relationship  
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail  
RIP - REACH Implementation Project  
RMM - Risk Management Measure  
SCBA - Self-Contained Breathing Apparatus  
SDS - Safety data sheet  
SIEF - Substance Information Exchange Forum  
SME - Small and Medium sized Enterprises  
STOT - Specific Target Organ Toxicity



(STOT) RE - Repeated Exposure  
(STOT) SE - Single Exposure  
SVHC - Substances of Very High Concern  
UN - United Nations  
vPvB - Very Persistent and Very Bioaccumulative

**List of relevant H phrases**

H220 Extremely flammable gas.  
H225 Highly flammable liquid and vapour.  
H226 Flammable liquid and vapour.  
H280 Contains gas under pressure; may explode if heated.  
H304 May be fatal if swallowed and enters airways.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H351 Suspected of causing cancer.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.