

ZINC ALU SPRAY

SEKCJA 1: SUBSTANCE/MIXTURE IDENTIFICATION AND MANUFACTURER/SUPPLIER IDENTIFICATION

1.1. Product identification

ZINC ALU SPRAY

UFI: AE80-JOKS-200U-NNUU

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

Anti-corrosion protection/paint. Aerosol coating*.

1.3 Data of the safety data sheet supplier

Przedsiębiorstwo RANAL Sp. z o.o.

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SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to the regulation (EC) no 1272/2008.

 GHS02 flame
Aerosol 1 H222-H229 Extremely flammable aerosol. Container under pressure: may explode if heated.

 GHS09 environment
Aquatic Chronic 2 H411 Toxic to aquatic life with long-lasting effects.

 GHS07
Eye Irrit. 2 H319 Causes eye irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.

2.2. Label elements

Classification according to the regulation (EC) no 1272/2008:
The product is classified and labelled according to CLP regulation.

Hazard pictograms:



Signal word: **Danger**.

Contains: Acetone. Reaction mass of ethylbenzene and xylene.

Hazard statements*:

H222- H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
H319 Causes eye irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long-lasting effects.

Precautionary statements*:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn even after use.
P260* Do not breathe mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear eyes protection / face protection.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P337+P313	If eye irritation persists: get medical advice/attention.
P403*	Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122 °F.
P501	Dispose of contents/container in accordance with local / regional / national / international regulations.

Additional information:

EUH 066 Repeated exposure may cause skin dryness or cracking.

The product contains: explosive precursors subject to notification. Provision, introduction, possession and use in accordance with Regulation (EU) 2019/1148, Article 9. *

Formation of explosive mixtures is possible in case of insufficient ventilation.

2.3. Other hazards

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2. Mixtures

Description: Mixture of biocatalysts with liquid propellant. *

Chemical Name:	Content (% m/m):	CAS: EC Index no:	Classification (1272/2008/EC):
Acetone	25 - <50%	CAS: 67-64-1 EINECS: 200-662-2 Reg. no.: 01-2119471330-49	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066*
Butane (1,3 Butadiene <0,1%)	10-< 25%	CAS: 106-97-8 EINECS: 203-448-7 Reg. no.: 01-2119474691-32	Flam. Gas 1, H220; Press. Gas (Comp.), H280.
Propane	10-< 25%	CAS: 74-98-6 EINECS: 200-827-9 Reg. no.: 01-2119486944-21	Flam. Gas 1, H220; Press. Gas (Comp.), H280.
Xylene*	2.5-< 10%	CAS: 1330-20-7 EINECS: 215-535-7 Reg. no: 01-2119488216-32	Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335
zinc powder -zinc dust (pyrophoric)	2.5-< 10%	CAS: 7440-66-6 EINECS: 231-175-3 Reg. no.: 01-2119467174-37	Aquatic Acute 1, H400; Aquatic Chronic 1, H410
Isobutane	2.5-< 10%	CAS: 75-28-5 EINECS: 200-857-2 Reg. no.: 01-2119485395-27	Flam. Gas 1, H220; Press. Gas (Comp.), H280.
Product of reaction mass of ethylbenzene and xylene	1-<2.5% *	EC number: 905-588-0 Reg. no.: 01-2119488216-32 01-2119486136-34	Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335
Ethylbenzene	0.1-< 1%	CAS: 100-41-4 EINECS: 202-849-4 Reg. no.: 01-2119489370-35	Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332
Trizinc bis(orthophosphate)	≥0.25-<1%	CAS: 7779-90-0 EINECS: 231-944-3 Reg. no.: 01-2119463881-32	Aquatic Chronic 1, H410

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

After inhalation: Supply fresh air, in case of disturbances, consult a doctor.

After contact with skin: In general the product does not irritate skin.

After contact with eyes: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Do not induce vomiting and call a doctor.

4.2. Most important symptoms both acute and delayed

No further relevant data available.

4.3 Indications of any immediate medical attention and special treatment needed

No further relevant data available.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Useful extinguishing media: water mist, extinguishing powder, carbon dioxide., foam resistant to alcohol.

Extinguishing media unsuitable due to safety considerations: Full jet of water.

5.2. Special hazards arising from the substance or mixture

No further relevant data available.

5.3. Advice for fire fighters

Special protective equipment: Wear respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency measures

Wear protective clothing. Move unprotected persons to a safe place.

6.2. Environmental precautions

Prevent from reaching sewage system or water courses.

In the event of leakage into water course or sewage system inform competent authorities.

Do not allow entering sewage system /surface water /ground water.

6.3. Methods and materials for containment and cleaning up

Ensure adequate ventilation. Do not wash with water or water based cleaning agents.

6.4. Reference to other sections

Information on safe handling: see section 7. Information on personal protective measures: see section 8.

Information on disposal: see section 13.

SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1. Precautions for safe handling

Ensure good ventilation / exhaustion at the workplace.

Information about fire and explosion protection: Do not spray towards flames or over glowing material. Keep ignition sources away- do not smoke. Take precautionary measures against static discharges.

Warning: Pressurized container. Protect from sunlight and temperatures over 50°C.

Do not open violently or burn even after use.

7.2. Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Keep cool. Observe regulations concerning the storage of pressurized gas tanks.

Information about common storage:

Observe regulations concerning the storage of pressurized gas tanks.

Further information about storage conditions:

Store in well-sealed barrels in a cool and dry place. Protect against heat and direct sunlight.

7.3. Special end use (s)

No further relevant data available.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES

8.1. Control parameters

Occupational Exposure limit:

Components with limit values that require monitoring depending on the workplace:

67-64-1 Acetone	NDS	NDSCh: 1800 mg/m ³	MPC: 600 mg/m ³	
106-97-8 butane (1,3 Butadiene <0,1%)	MPC	MPIC: 3000 mg/m ³	MPC: 1900 mg/m ³	
74-98-6 Propane	MPC	MPIC: -	NDS: 1800 mg/m ³	
1330-20-7 xylene*	MPC	MPIC: 200 mg/m ³ ,	MPC: 100 mg/m ³	skin
75-28-5 Isobutane*	TLV	MPC: 1900 mg/m ³ , 800 ppm		
		Additioneel ingevuld obv klant voor Hfdst 3 SDS		
100-41-4 Ethylbenzene	NDS	NDSCh: 400 mg/m ³	MPC: 200 mg/m ³	skin

DNEL values:

67-64-1 Acetone		
Oral	DNEL Long term-systemic	62 mg/kg bw/day (Consumer)
Skin	DNEL Long term-systemic	62 mg/kg bw/day (Consumer) 186 mg/kg bw/day (Worker)*
Inhalation	DNEL Acute-local	2420 mg/m ³ (worker)
	DNEL Long term-systemic	200 mg/m ³ (Consumer) 1210 mg/m ³ (Worker)

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1330-20-7 xylene*

Oral	DNEL Long term-systemic	12.5 mg/kg bw/day (Consumer)
Skin	DNEL Long term-systemic	125 mg/kg bw/day (Consumer)
		212 mg/kg bw/day (Worker)
Inhalation	DNEL Acute-systemic	260 mg/m ³ (Consumer)
		442 mg/m ³ (Worker)
	DNEL Acute-local	260 mg/m ³ (Consumer)
		442 mg/m ³ (Worker)
	DNEL Long term-systemic	65.3 mg/m ³ (Consumer)
		221 mg/m ³ (Worker)
	DNEL Long-term-local	65.3 mg/m ³ (Consumer)
		221 mg/m ³ (Worker)

7440-66-6 zinc powder -zinc dust (stabilized)

Oral	DNEL Long term-systemic	50 mg/kg bw/day (worker)
Skin	DNEL Long term-systemic	5000 mg/kg bw/day (Consumer)
		5000 mg/kg bw/day (Worker)
Inhalation	DNEL Long term-systemic	2.5 mg/m ³ (Consumer)
		5 mg/m ³ (Worker)

Product of reaction mass of ethylbenzene and xylene

Oral	DNEL Long term-systemic	1.6 mg/kg bw/day (Consumer)
Skin	DNEL Long term-systemic	108 mg/kg bw/day (Consumer)
		180 mg/kg bw/day (Worker)
Inhalation	DNEL Acute-systemic*	174 mg/m ³ (Consumer)
		289 mg/m ³ (Worker)
	DNEL Acute-local	289 mg/m ³ (worker)
	DNEL Long term-systemic	14.8 mg/m ³ (Consumer)
		77 mg/m ³ (Worker)
	DNEL Long-term-local	174 mg/m ³ (Consumer)*
	221 mg/m ³ (Worker)*	

PNEC values:

Acetone	
PNEC Marine water	1.06 mg/l (Undefined)
PNEC Fresh water sediment	30.4 mg/l (dry weight) (Undefined)
PNEC Soil	29.5 (Undefined)
PNEC Marine water sediment	3.04 mg/l (dry weight) (Undefined)

zinc powder -zinc dust (pyrophoric)

PNEC Fresh water	20.6 mg/l (Undefined)
PNEC Marine water	6.1 mg/l (Undefined)
PNEC Fresh water sediment	118 mg/l (dry weight) (Undefined)
PNEC Soil	56.6 (Undefined)
PNEC Sewage treatment plant	52 mg/l (Undefined)
PNEC Marine water sediment	56.5 mg/l (dry weight) (Undefined)

Product of reaction mass of ethylbenzene and xylene

PNEC Fresh water	0.327 mg/l (Undefined)
PNEC Marine water	0.327 mg/l (Undefined)
PNEC Fresh water sediment	12.46 mg/l (dry weight) (Undefined)
PNEC Soil	2.31 (Undefined)
PNEC Sewage treatment plant	6.58 mg/l (Undefined)
PNEC Marine water sediment	12.46 mg/l (dry weight) (Undefined)

Components with permissible biological values*:

Additional exposure limits with possible technological hazards:

100-41-4 Ethylbenzene

MPC	MPIC: 400 mg/m ³
	MPC: 200 mg/m ³
	Skin

108-88-3 Toluene

MPC	MPIC: 200 mg/m ³
	MPC: 100 mg/m ³
	Skin

Additional information: The currently valid lists were used as basis.

8.2. Exposure control

Technical control measures*:

No further data, see section 7.

Personal protective equipment:

General measures of protection and hygiene:

Keep away from foodstuffs, beverages and feed. Immediately take off all soaked and contaminated clothing. Wash hands before each break and at the end of work. Do not breathe gases/ vapours / spray. Avoid contact with eyes. Avoid contact with eyes and skin.

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Respiratory protection:

In case of insufficient ventilation use respiratory protection.

Filter A2/P2.

Hands protection:

Use protective gloves to work with chemicals according to standard EN 374.



Protective gloves.

Gloves resistant to solvents.

Selection of the glove material on consideration of the breakthrough times, rates of diffusion and degradation.

Penetration time of the glove material::

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. As the product is a mixture consisting of several substances the resistance of the materials from which the gloves are made cannot be calculated in advance and should therefore be checked before use.

Nitrile rubber.

Recommended thickness of the material: ≥ 0.5 mm.

Penetration time of the glove material::

For continuous contact, it is recommended to use gloves with a tensile strength of not less than 240 minutes, with a penetration time of more than 480 minutes as priority. We recommend the same for short-term works or protection against splash. We understand that gloves that offer this level of protection may not be in stock. In this case, gloves with a shorter interval are acceptable as long as this is in accordance with the procedures governing maintenance, and timely replacements must be observed.

The thickness of the glove is not a good measure of the glove's chemical resistance as it depends on the exact composition of the glove material. Information about the penetration time of the substance should be obtained from the glove manufacturer and has to be observed.

Eyes protection:

Protective glasses (EN-166).



Tightly sealed protective glasses.

Body protection:

Use protective clothing (EN-13034/6).

It is recommended to use antistatic, chemical and oil-resistant clothing as well as safety shoes. (EN1149; EN340&EN ISO 13688; 13034-6).

*

Environmental control*:

Use an appropriate container to prevent environmental contamination.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties*

Physical state:	Aerosol
Colour:	according to product name
Odour:	characteristic
Odour threshold:	not specified
Melting /freezing point:	Not specified.
Boiling point * or initial boiling point and boiling range:	-44.5°C
Flammability of materials*:	Not applicable.
Explosion limits:	
Bottom:	1.1 Vol %
Top:	13 Vol %
Flash point:	-97°C
Auto ignition point:	365°C
pH value	The mixture is non-polar/aprotic*
Viscosity:	
Dynamic:	not specified
Kinetic:	not specified
Solubility in/miscibility with:	
Water:	Not miscible or difficult to mix.
n-octanol/water partition coefficient (Log Kow):	not specified
Vapour pressure at 20°C:	3900 hPa *
Density at 20°C:	0.733 g/cm3
Relative density:	not specified
Vapour density:	not specified

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9.2. Other information*

Form: Aerosol

Important information on health and environment protection and safety*:

Combustion temperature: The product is not self-igniting
Explosive properties: The product is not explosive, but may form explosive mixtures with the air

Solvent content: organic solvents: 88.0 %
Solids content: 9.3%.
Evaporation rate: Not applicable.

Information with regard to physical hazard classes*:

Explosives: none
Flammable gases: none
Aerosols: Extremely flammable aerosol. Pressurized container: May burst if heated.
Oxidizing gases: none
Gases under pressure: none
Flammable liquids: none
Flammable solids: none
Self-reactive substances and mixtures: none
Pyrophoric liquids: none
Pyrophoric solids: none
Self-heating substances and mixtures: none
Substances and mixtures which emit
Flammable gases: none
Oxidizing liquids: none
Oxidizing solids: none
Organic peroxides: none
Substances corrosive to metals: none
Desensitised explosives: none

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No further relevant data available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used as intended.

10.3. Possibility of hazardous reactions

Hazardous reactions unknown.

10.4. Conditions to be avoided

No further relevant data available.

10.5. Incompatible materials

No further relevant data available.

10.6. Hazardous decomposition products

Hazardous decomposition products unknown.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on the hazard classes defined in Regulation (EC) No 1272/2008*

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

Relevant classified LD/LC50 values:

67-64-1 Acetone

Oral	LD50	5800 mg/kg (Rat)
	ATE*	5800 mg/kg (Rat)
Dermal	LD50	7800 mg/kg (Rabbit)
	ATE*	20000 mg/kg (nd)
		> 15800 mg/kg (Rabbit)
Inhalation	LC50/ 4h	> 20 mg/l (Rat)
	ATE*	76 mg/l, 4h (Rat)

1330-20-7 xylene*

Oral	LD50	4300 mg/kg/bw (Rat) (Acute Oral Toxicity)
Dermal	LD50	12126 mg/kg/bw (Rabbit)
Inhalation	LC50(4h)	6350 mg/l (Rat)

7440-66-6 zinc powder -zinc dust (pyrophoric)

Oral	LD50	> 2000 mg/kg (Rat)
Inhalation	LC50/ 4h	>5.4 mg/l (Rat)
Product of reaction	mass of ethylbenzene and xylene	
Oral	LD50	3523 mg/kg *(Rat)
Dermal	LD50	12126 mg/kg *(Rabbit)
Inhalation*	LC50(4h)	29000 mg/l (Rat)

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Possible irritating effect: Effect Type Method:

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Causes eye irritation.

Allergic effect on airways or skin: Based on available data, the classification criteria are not met.

Mutagenic effect on germ cells: Based on available data, the classification criteria are not met.

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

Harmful effect on reproduction: Based on available data, the classification criteria are not met.

Specific target organ toxicity – single exposure: May cause drowsiness or dizziness.

Specific target organ toxicity – repeated exposure: Based on available data, the classification criteria are not met.

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

11.2. Information on other hazards*

Endocrine disrupting properties*:

556-67-2 octamethylcyclotetrasiloxane: Inventory II; III.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Aquatic toxicity:

67-64-1 Acetone

EC50	8800 mg/l	(Daphnia magna)
	8300 mg/l	(Fish)

1330-20-7 xylene*

LC50	96h	8.9 - 16.4 mg/l	(Pimephales promelas)
EC50	48h	3.2 - 9.5 mg/l	(Daphnia magna)

7440-66-6 zinc powder -zinc dust (pyrophoric)

EC50	48 h	354 ug/l	(Daphnia Magna)
NOEC	21 d	178 ug/l	(Crustaceen-Palaemon elegans)
NOEC	72 h	9 mg/l	(Ceratophyllum demersum)
		0.017 mg/l	(Pseudokirchneriella subcapitata)
NOEC	72 h	72.9 ug/l	(Pseudokirchneriella subcapitata)
NOEC	4 w	8.3 ug/l	(Cyprinus carpio)
EC10	21 d	59.2 ug/l	(dm)
EC10	72 h	27.3 ug/l	(Algae)
EC50	72 h	0.17 mg/l	(Selenastrum Capricornutum)
LC50	96 h	0.41 mg/l	(Oncorhynchus mykiss)
EC50	48 h	1 mg/l	(Dm)
EC50	96 h	0.527 mg/l	(algae)
LC50	96 h	238 - 269 ug/l	(Pimephales promelas)

Product of reaction mass of ethylbenzene and xylene

NOEC		1.3 mg/l	(Fish)
NOEC	7 day	0.96 mg/l	(Dm)
NOEC	72 h	0.44 mg/l	(algae)
NOEC	28 d	16 mg/l	(Bacteria)
LC50	96 h	8.9 - 16.4 mg/l	(Pimephales promelas)
EC50	48 h	3.2 - 9.5 mg/l	(Dm)

12.2. Persistence and degradability

Not easily biodegradable.*

12.3. Bioaccumulative potential

No further relevant data available.

12.4. Mobility in soil

No further relevant data available. *

12.5. Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6. Endocrine disrupting properties*

See section 11 for information on endocrine disrupting properties.

12.7. Other hazardous effects*

Ecotoxic effects:

Warning: Poisonous to fish.

Further ecological information:

General information:

Water hazard class 2 (Self-assessment): hazardous to water.

Do not allow the product to reach ground water, surface water or sewage system.

Dangerous to drinking water if even small quantities leak into the ground.

Poisonous to fish and plankton in water reservoirs.
Poisonous to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Product

Recommendation:

Must not be disposed together with household garbage. Prevent from reaching sewage system.

European waste catalogue

HP3 Flammable

HP4 Irritating- causing skin irritation and eye damage.

HP5 Specific Target Organ Toxicity (STOT) or aspiration hazard.

HP14 Ecotoxic.

Contaminated packaging:

Recommendation: Dispose of according to applicable regulations.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number or ID number*

ADR, ADN, IMDG, IATA UN 1950

14.2. UN proper shipping name

ADR, ADN UN1950 AEROSOLS

IMDG AEROSOLS (zinc powder -zinc dust (stabilized), trizinc bis(orthophosphate)), MARINE POLLUTANT

IATA AEROSOLS, flammable

14.3. Transport hazard class (-es)

ADR

Class: 2 5F gases

Label: 2.1

ADN

Class ADN/R: 2 5F

IMDG

Class: 2.1

Label: 2.1

IATA

Class: 2.1

Label: 2.1

14.4. Packaging group

ADR, IMDG, IATA none

14.5. Environmental hazards

The product contains substances hazardous to the environment: zinc powder -zinc dust (pyrophoric)

Marine pollutants: Yes.

Symbol (fish and tree).

Special labelling (ADR): Symbol (fish and tree).

14.6. Special precautions for users

Warning: gases.

Kemler's code: -

EMS Number: F-D,S-U

Stowage Code SW1 Protected from sources of heat.

SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.

Segregation Code SG69 For AEROSOLS with a maximum capacity of 1 litre:

Segregation as for class 9. Stow "separated from" class 1 except for division 1.4.

For AEROSOLS with a capacity above 1 litre:

Segregation as for the appropriate subdivision of class 2.

For WASTE AEROSOLS:

Segregation as for the appropriate subdivision of class 2.

14.7. Sea transport in bulk in accordance with IMO instruments*

Not applicable.

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Transport/ further information:

ADR	
Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
Tunnel restriction code	D
IMDG	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
UN "Model Regulation":	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

SECTION 15: REGULATORY INFORMATION

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

Directive 2012/18/EU
Indicated dangerous components- ANNEX I None of the components are listed.

Seveso category:
P3a FLAMMABLE AEROSOLS
E2 Hazardous to the aquatic environment

Qualifying quantity (tonnes) for the application of lower-tier requirements: 150t
Qualifying quantity (tonnes) for the application of upper-tier requirements: 500t

Regulation (EC) no 1907/2006 ANNEX XVII: Restriction conditions: 3

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II*: none of the components are listed.

REGULATION (EU) 2019/1148*

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit for the purpose of licensing according to Article 5 item 3):

None of the components are listed;

Annex II - EXPLOSIVE PRECURSORS SUBJECT TO NOTIFICATION: 67-64-1 acetone.

Regulation (EC) No 273/2004 on drug precursors*:

67-64-1 acetone: 3
108-88-3 Toluene: 3

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors*:

67-64-1 acetone: 3
108-88-3 Toluene: 3

National regulations:

Class share %
NK 75-< 100

VOC-CH 88.01 % *
VOC-EU 645.1 g/l *
Danish MAL Code 4-3

15.2. Chemical safety assessment

Chemical safety assessment has not been performed.

SECTION 16: OTHER INFORMATION

This information is based on our present knowledge; however it does not definitively define the production characteristics and cannot be used as a justification for valid contracts.

Relative phrases:

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
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.
H319	Causes eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.

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H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long-lasting effects.
H412	Harmful to aquatic life with long-lasting effects.
EUH066*	Repeated exposure may cause skin dryness or cracking.

Classification according to the Regulation (EC) no 1272/2008*:

Physical and chemical properties: The classification is based on the results of the mixtures tested. Health hazards, Environmental hazards:
The method of classification of mixtures based on the constituents of the mixture (sum formula).

Explanation of abbreviations and acronyms:

RID	Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO	International Civil Aviation Organisation
ADR	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG	International Maritime Code for Dangerous Goods
IATA	International Air Transport Association
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
CAS	Chemical Abstracts Service (division of the American Chemical Society)
MAL-Code	Måleteknisk Arbejdshygienisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)
DNEL	Derived No-Effect Level (REACH)
PNEC	Derived No-Effect Concentration (REACH)
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
PBT	Persistent, Bioaccumulative and Toxic
vPvB	very Persistent and very Bioaccumulative
Flam. Gas 1	Flammable gases – Category 1
Aerosol 1	Aerosols – Category 1
Press. Gas (Comp.)	Gases under pressure - Compressed gas
Flam. Liq. 2	Flammable liquids – Category 2
Flam. Liq. 3	Flammable liquids – Category 3
Flam. Sol. 1	Flammable solids – Category 1
Acute Tox. 4	Acute toxicity – Category 4
Skin Irrit. 2	Skin corrosion/irritation – Category 2
Eye Irrit. 2	Serious eye damage/eye irritation– category 2
STOT SE 3	Specific target organ toxicity (single exposure) – Category 3
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Asp. Tox. 1	Aspiration hazard - Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Acute hazard to the aquatic environment – Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - long-term hazard to the aquatic environment – Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - long-term hazard to the aquatic environment – Category 2

Changes in the Sheet:

Update of sections:

9: rewording of sub-section 9.1: Information on basic physical and chemical properties

11: rewording of sub-section 11.1: Information on the hazard classes defined in Regulation (EC) No 1272/ 2008: added subsection 11.2.

Information on other hazards

12: new subsection 12.6: Endocrine disrupting properties.

14: rewording of sub-section 14.1: UN number or ID number; rewording of sub-section 14.7: Sea transport in bulk in accordance with IMO instruments.

Changes in the content of sections:

1.2, 2.2, 3.2, 8.1, 8.2, 9.1, 9.2, 11.1, 11.2, 12.1, 12.2, 12.4, 12.6, 12.7, 14.1, 14.7, 15.1, 16.

General update.

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