

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## HOS

Creation date	22nd September 2003	Version	16
Revision date	30th November 2022		

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

**1.1. Product identifier** HOS  
Substance / mixture mixture

**1.2. Relevant identified uses of the substance or mixture and uses advised against**  
**Mixture's intended use**

Aluminum protective spray

#### The use descriptors

IS Use at industrial sites  
PW Widespread use by professional workers

#### Mixture uses advised against

The product should not be used in ways other than those referred in Section 1.

**1.3. Details of the supplier of the safety data sheet**

#### Supplier

Name or trade name	NOVATO
Address	Uralská 770/6, Praha, 160 00 Czech Republic
Identification number (CRN)	62910370
VAT Reg No	CZ62910370
Phone	+420 233 339 688
E-mail	petr.johanides@novato.cz
Web address	www.novato.cz

#### Competent person responsible for the safety data sheet

Name	ABITEC
E-mail	info@abitec.cz

**1.4. Emergency telephone number**

European emergency number: 112

### SECTION 2: Hazards identification

**2.1. Classification of the substance or mixture**

#### Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Aerosol 1, H229, H222  
Eye Irrit. 2, H319  
STOT SE 3, H336

#### Most serious adverse physico-chemical effects

The mixture is extremely flammable. The container is under pressure: do not expose to sunlight and temperatures above

50 °C. Do not even puncture the empty container or throw it into the fire. Do not spray into an open flame or on hot objects. Keep away from sources of ignition - No smoking. Keep it out of reach of children. Incomplete combustion can release dangerous gases. The mixture contains flammable solids and a component that reacts with water to release flammable gases.

#### Most serious adverse effects on human health and the environment

Inhalation of the aerosol may cause headaches, fatigue, drowsiness. Do not breathe aerosol. Frequent or prolonged skin contact causes dryness or cracking of the skin to dermatitis. Ingestion of the liquid phase can cause abdominal pain and nausea. Follow the instructions in the operating instructions. The mixture is classified as harmful to the environment. Follow the instructions for use to avoid risks to humans and the environment. The liquid is lighter than water and can cover the water surface. The mixture must not get into the soil, groundwater or surface water or sewage system. For the full text of the H-Statements mentioned in this Section, see Section 16 of this Safety Data Sheet.

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### 2.2. Label elements

#### Hazard pictogram



#### Signal word

Danger

#### Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

#### Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing vapours/spray.
P273	Avoid release to the environment.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

#### Supplemental information

EUH066 Repeated exposure may cause skin dryness or cracking.

### 2.3. Other hazards

Neither the mixture nor its components meet the criteria for persistent, bioaccumulative and toxic or highly persistent and highly bioaccumulative substances in accordance with Annex XIII, nor have they been included in the list drawn up in accordance with Article 59, paragraph 1, due to the content of endocrine disruptors, nor has it been determined as a substance with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Mixture.

#### Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 606-001-00-8 CAS: 67-64-1 EC: 200-662-2	acetone	25-50	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066 Specific concentration limit: Eye Irrit. 2, H319: C ≥ 10 % STOT SE 3, H336: C ≥ 20 %	4
Index: 601-003-00-5 CAS: 74-98-6 EC: 200-827-9	propane	10-12,5	Press. Gas, Flam. Gas 1, H220	2
Index: 601-004-00-0 CAS: 106-97-8 EC: 203-448-7	butane	5-10	Press. Gas, Flam. Gas 1, H220	1, 2

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Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 601-004-00-0 CAS: 75-28-5 EC: 200-857-2	isobutane	5-10	Press. Gas, Flam. Gas 1, H220	1, 2
Index: 607-025-00-1 CAS: 123-86-4 EC: 204-658-1	n-butyl acetate	5-10	Flam. Liq. 3, H226 STOT SE 3, H336 Specific concentration limit: STOT SE 3, H336: C ≥ 20 %	4
Index: 607-195-00-7 CAS: 108-65-6 EC: 203-603-9	2-methoxy-1-methylethyl acetate	5-10	Flam. Liq. 3, H226	4
Index: 013-002-00-1 CAS: 7429-90-5 EC: 231-072-3	aluminium powder (stabilised)	1-2,5	Flam. Sol. 1, H228 Water-react. 2, H261	3, 4
CAS: 9004-70-0	Nitrocellulose (N content<12.6%)	1-2,5	Flam. Sol. 1, H228	
Index: 601-022-00-9 CAS: 1330-20-7 EC: 215-535-7	xylene	1-2,5	Flam. Liq. 3, H226 Acute Tox. 4, H312+H332 Skin Irrit. 2, H315 Specific concentration limit: Acute Tox. 4, H312+H332: C ≥ 12.5 % Skin Irrit. 2, H315: C ≥ 10 %	1, 4, 5

### Notes

- 1 Note 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.
- 2 Note U (Table 3): 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).
- 3 Note 2: The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.
- 4 A substance for which exposure limits are set.
- 5 Substance for which biological limit values exist.

Full text of all classifications and hazard statements is given in the section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

In case of health problems or in case of doubt, consult a physician and provide him with the information in this safety data sheet. In case of life-threatening conditions, perform resuscitation. Keep unconscious person in a stabilized position and do not give anything by mouth. Avoid cooling. Do not induce vomiting. In case of spontaneous vomiting, avoid inhalation of vomitus. If burns occur, cool the burn with cold water and cover with a clean cloth.

#### If inhaled

If inhaled, leave the area, rinse the mouth with water, inhale fresh air. If breathing is difficult, give first aid and seek medical advice.

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### If on skin

Wipe the product, wash thoroughly with lukewarm water, soap and treat with regenerating cream. If clothing is contaminated, remove clothing. Seek medical attention if irritation develops.

### If in eyes

If the affected person has contact lenses, remove them. Flush eyes wide open from the inner corner of the eye towards the outside with plenty of clean lukewarm water, especially the area under the eyelids. Rinse for at least 15 minutes, seek medical attention.

### If swallowed

In the case of an aerosol product, ingestion is very unlikely. Do not induce vomiting, rinse mouth with water. Seek medical attention immediately and present this safety data sheet. Danger of vomiting!

## 4.2. Most important symptoms and effects, both acute and delayed

### If inhaled

Inhalation of the aerosol may cause headaches, fatigue, drowsiness.

### If on skin

Frequent or prolonged skin contact causes dryness or cracking of the skin to dermatitis.

### If in eyes

Irritating to the eyes (watering, burning, itching, redness, conjunctivitis).

### If swallowed

The penetration of the liquid fraction into the respiratory tract upon ingestion or aspiration of the vomiting following emesis may result in bronchopneumonia or pneumonia.

## 4.3. Indication of any immediate medical attention and special treatment needed

Immediate medical attention is not required during normal use of the mixture. Required only if symptoms reach a certain level, as indicated in paragraphs 4.1 and 4.2; is symptomatic.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Multipurpose powders, CO<sub>2</sub>, foam, water mist, sand.

#### Unsuitable extinguishing media

Full stream of water. Crushed water can be used to cool the containers near the fire.

### 5.2. Special hazards arising from the substance or mixture

Extremely flammable mixture. Incomplete combustion can produce toxic gases (CO<sub>x</sub>, hydrocarbons etc.). Do not inhale decomposition products. Pressure overpressure can occur at elevated temperatures packaging and its tearing. Solvent vapors are heavier than air, they accumulate in lower positions. In mixtures with air may form an explosive mixture. There is a risk of re-ignition.

### 5.3. Advice for firefighters

Isolation breathing apparatus and non-flammable intervention suit. Use non-sparking tools. Cool containers exposed to fire with water spray or foam. Burning residues and post-intervention water should be disposed of as hazardous waste.

## SECTION 6: Accidental release measures

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

Prevent unauthorized entry, ensure free escape. Ensure adequate ventilation, do not breathe aerosol. Eliminate possible sources of ignition, do not smoke, do not handle open flame, do not expose to direct sunlight. Use non-sparking tools, avoid electrostatic charge. Avoid contact with skin and eyes - use personal protective equipment.

### 6.2. Environmental precautions

Provide a spill area, prevent leakage into drains, soil, surface and ground water. In case of a large liquid leak, monitor the NPK concentrations resp. TLV and inform the relevant public authorities and the flow or sewerage manager.

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

Stop the leak. In case of large leakage of liquid fraction, drain the mixture. The aerosol evaporates, ensure adequate ventilation. In case of a minor leakage of the liquid fraction, cover with a non-flammable sorbent (sand, diatomaceous earth, soil, universal sorbent, etc.), store the used sorbent in a closable waste container, mark it and dispose of it as hazardous waste. Wash contaminated area with water.

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**6.4. Reference to other sections**  
See the Section 7, 8 and 13.

### SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

Ensure adequate ventilation of the work area. Avoid contact with open flames and other sources of ignition. Protect against direct sunlight. Use non-sparking tools. Take precautionary measures against static discharge. Avoid the formation of gases and vapors in flammable or explosive concentrations and concentrations exceeding the maximum permissible concentrations (NPK-P) for the working atmosphere. Protect eyes and skin, do not breathe aerosol or fumes, use personal protective equipment according to section 8. Observe valid legal regulations on safety and health protection. Follow the principles of hygiene when working with chemicals, do not eat, drink or smoke while working. Wash hands with warm soap and water before breaks, meals and after work.

**7.2. Conditions for safe storage, including any incompatibilities**

Store in original containers at temperatures up to 50 ° C in dry, well-ventilated areas. Store away from heat, protect from direct sunlight and external weather conditions. Store away from food, drink and animal feeding stuffs. Store separately as flammable. No smoking. Observe the general regulations for storage of pressure vessels. Follow the instructions on the label.

Content	Packaging type	Material of package
500 ml	aerosol can	FE

Storage class 2B - Aerosols  
Storage temperature max. 50 °C

**7.3. Specific end use(s)**  
It is not.

### SECTION 8: Exposure controls/personal protection

**8.1. Control parameters**

Ensure compliance with governmental regulation 361/2007 Coll., Laying down the conditions for the protection of health at work, as amended, and to fulfill the obligations contained therein.

**Czech Republic**

**Government Regulation 330/2023 Coll.**

Substance name (component)	Type	Value	Note
n-butyl acetate (CAS: 123-86-4)	PEL	950 mg/m <sup>3</sup>	
	NPK-P	1200 mg/m <sup>3</sup>	
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	PEL	275 mg/m <sup>3</sup>	skin penetration is significantly involved during exposure
	PEL	50 ppm	
	NPK-P	550 mg/m <sup>3</sup>	
xylene (CAS: 1330-20-7)	NPK-P	100 ppm	skin penetration is significantly involved during exposure, irritating to mucous membranes (eyes, respiratory system) and skin
	PEL	200 mg/m <sup>3</sup>	
	PEL	45,33 ppm	

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**Czech Republic** **Government Regulation 330/2023 Coll.**

Substance name (component)	Type	Value	Note
xylene (CAS: 1330-20-7)	NPK-P	400 mg/m <sup>3</sup>	skin penetration is significantly involved during exposure, irritating to mucous membranes (eyes, respiratory system) and skin
	NPK-P	90,66 ppm	

**Czech Republic** **Government Regulation 41/2020 Coll.**

Substance name (component)	Type	Value	Note
aluminium powder (stabilised) (CAS: 7429-90-5)	PELc	10 mg/m <sup>3</sup>	

**European Union** **Commission Directive (EU) 2019/1831**

Substance name (component)	Type	Value	Note
n-butyl acetate (CAS: 123-86-4)	OEL 8 hours	241 mg/m <sup>3</sup>	
	OEL 8 hours	50 ppm	
	OEL 15 minutes	723 mg/m <sup>3</sup>	
	OEL 15 minutes	150 ppm	

**European Union** **Commission Directive 2000/39/EC**

Substance name (component)	Type	Value	Note
acetone (CAS: 67-64-1)	OEL 8 hours	1210 mg/m <sup>3</sup>	
	OEL 8 hours	500 ppm	
2-methoxy-1-methylethyl acetate (CAS: 108-65-6)	OEL 8 hours	275 mg/m <sup>3</sup>	Skin
	OEL 8 hours	50 ppm	
	OEL 15 minutes	550 mg/m <sup>3</sup>	
	OEL 15 minutes	100 ppm	
xylene (CAS: 1330-20-7)	OEL 8 hours	221 mg/m <sup>3</sup>	Skin
	OEL 8 hours	50 ppm	
	OEL 15 minutes	442 mg/m <sup>3</sup>	
	OEL 15 minutes	100 ppm	

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### Biological limit values

#### Czech Republic

**Decree No. 107/2017 Coll.**

Name	Parameter	Value	Tested material	Time of sampling
xylene (CAS: 1330-20-7)	Methylhippuric acids	1400 mg/g of creatinine	Urine	End of shift
		820 µmol/mmol creatinine		

### DNEL

2-methoxy-1-methylethyl acetate					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	275 mg/m <sup>3</sup>	Chronic effects systemic		
Workers	Inhalation	550 mg/m <sup>3</sup>	Acute effects local		
Workers	Dermal	796 mg/kg/24h	Chronic effects systemic		

acetone					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	1210 mg/m <sup>3</sup>	Chronic effects systemic		
Workers	Dermal	186 mg/kg/24h	Chronic effects systemic		
Workers	Inhalation	2420 mg/m <sup>3</sup>	Acute effects local		

aluminium powder (stabilised)					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	3.72 mg/m <sup>3</sup>	Chronic effects systemic		
Workers	Inhalation	3.72 mg/m <sup>3</sup>	Acute effects local		

n-butyl acetate					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	300 mg/m <sup>3</sup>	Chronic effects systemic		
Workers	Inhalation	600 mg/m <sup>3</sup>	Acute effects systemic		
Workers	Inhalation	960 mg/m <sup>3</sup>	Acute effects systemic		
Workers	Dermal	11 mg/kg/24h	Chronic effects systemic		

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xylene					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	77 mg/m <sup>3</sup>	Chronic effects systemic		
Workers	Inhalation	442 mg/m <sup>3</sup>	Acute effects local		
Workers	Inhalation	289 mg/m <sup>3</sup>	Acute effects local		
Workers	Inhalation	289 mg/m <sup>3</sup>	Chronic effects local		
Workers	Dermal	180 mg/kg/24h	Chronic effects systemic		

### PNEC

2-methoxy-1-methylethyl acetate			
Route of exposure	Value	Value determination	Source
Microorganisms in sewage treatment	100 mg/l		
Freshwater environment	0.635 mg/l		
Marine water	0.064 mg/l		
Soil (agricultural)	0.29 mg/kg		
Freshwater sediment	3.29 mg/kg		
Sea sediments	0.329 mg/kg		

acetone			
Route of exposure	Value	Value determination	Source
Microorganisms in sewage treatment	100 mg/l		
Freshwater environment	10.6 mg/l		
Marine water	1.06 mg/l		
Soil (agricultural)	29.5 mg/kg		
Freshwater sediment	30.4 mg/kg		
Sea sediments	3.04 mg/kg		

n-butyl acetate			
Route of exposure	Value	Value determination	Source
Microorganisms in sewage treatment	35.6 mg/l		
Freshwater environment	0.18 mg/l		
Marine water	0.018 mg/l		
Soil (agricultural)	0.09 mg/kg		
Freshwater environment	0.981 mg/kg		
Sea sediments	0.098 mg/kg		

xylene			
Route of exposure	Value	Value determination	Source
Freshwater environment	0.327 mg/l		
Marine water	0.327 mg/l		
Freshwater sediment	12.46 mg/kg		
Sea sediments	12.46 mg/kg		



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### 8.2. Exposure controls

Ensure sufficient ventilation or extraction of the work area. In case of exceeding the NPK-P, use suitable respiratory protection. Avoid contact with skin and eyes, do not inhale aerosols, gases and vapors. Observe hygienic measures when working with chemicals. Do not eat, drink and smoke during work. Wash hands with lukewarm soap and water before breaks, meals and after work. Adapt personal protective equipment to the nature of the work.

#### Eye/face protection

Closed safety glasses. Not needed. Wear safety glasses if there is a risk of eye contact.

#### Skin protection

Work clothes. Take off contaminated clothing and wash before reuse. In case of long-term or repeated exposure, use protective gloves (material eg nitrile, 0.4 mm; viton, 0.7 mm, penetration time > 480 min.), Or other according to the performed test. When choosing, follow the manufacturer's recommendations, the material must be impermeable and resistant to the components of the mixture. Replace damaged gloves.

#### Respiratory protection

It is not necessary under normal conditions. In case of increased risk of inhalation and insufficient ventilation use a mask with a filter against organic vapors and aerosols, type A. In the event of an accident or for long-term exposure, use a self-contained breathing apparatus.

#### Thermal hazard

Exposure to elevated temperatures may result in tearing of the aerosol container when overheating.

#### Environmental exposure controls

It is not necessary if handling conditions are observed. Observe normal environmental precautions, do not allow to enter drains, soil or water sources.

#### More information

Ensure compliance with governmental regulation 361/2007 Coll., Laying down the conditions for the protection of health at work, as amended, and to fulfill the obligations contained therein.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	Silver
Odour	characteristic
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	data not available
Flammability	Extremely flammable aerosol
Lower and upper explosion limit	
bottom	1.7 %
upper	13 %
Flash point	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	data not available
Kinematic viscosity	data not available
Solubility in water	insoluble
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	8 hPa at 20 °C
Density and/or relative density	data not available
Relative vapour density	data not available
Particle characteristics	data not available

### 9.2. Other information

VOC content (according to EU): 93,58 % (688,6 g/l)

It is not explosive. Solvent vapors can mix with air create an explosive mixture.

The mixture is not classified as oxidizing.

Density and/or relative density (at 20 °C): 740 kg/m<sup>3</sup>

Content of non-volatile components: 6.3%

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The mixture is flammable. In normal conditions, the mixture does not show dangerous reactions.

#### 10.2. Chemical stability

The mixture is stable under normal environmental conditions, storage and handling.

#### 10.3. Possibility of hazardous reactions

Danger of exothermic reaction in contact with strong acids and oxidizing agents. Risk of explosion of the pressure package when heated.

#### 10.4. Conditions to avoid

Temperatures above 50 °C, contact with open flames, possible sources of ignition and hot surfaces, sparks, static electricity. Avoid the formation of a concentration within explosive limits.

#### 10.5. Incompatible materials

Flammable materials, strong oxidizing agents, strong acids and alkalis.

#### 10.6. Hazardous decomposition products

Under normal conditions, the mixture does not decompose. Imperfect combustion or thermal decomposition produces toxic combustion products: COx, heavy smoke, hydrocarbons, etc.

### SECTION 11: Toxicological information

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

The mixture meets the criteria for classification according to EC Regulation No. 1272/2008. The mixture is classified as dangerous in the sense of EC Regulation No. 1272/2008, as amended.

#### Acute toxicity

The mixture is not classified as acutely toxic by any way of exposure.

2-methoxy-1-methylethyl acetate					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD <sub>50</sub>	8532 mg/kg		Rat (Rattus norvegicus)	
Inhalation	LC <sub>50</sub>	4345 mg/l	6 hours	Rat (Rattus norvegicus)	
Dermal	LD <sub>50</sub>	>5000 mg/kg		Rabbit	

acetone					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD <sub>50</sub>	5800 mg/kg		Rat	
Dermal	LD <sub>50</sub>	20000 mg/kg		Rat	
Inhalation	LD <sub>50</sub>	50.1 mg/l	8 hours	Rat	

butane					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Inhalation	LC <sub>50</sub>	658 mg/l	4 hours	Rat	

n-butyl acetate					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD <sub>50</sub>	7437 mg/kg		Rat (Rattus norvegicus)	
Inhalation	LC <sub>50</sub>	>21.1 mg/l	4 hours	Rat (Rattus norvegicus)	
Dermal	LD <sub>50</sub>	>5000 mg/kg		Rabbit	

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propane					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Inhalation	LC <sub>50</sub>	658 mg/l	4 hours	Rat	

xylene					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD <sub>50</sub>	3523-8700 mg/kg		Rat (Rattus norvegicus)	
Dermal	LD <sub>50</sub>	1134 mg/kg		Rabbit	
Inhalation	LC <sub>50</sub>	5000-6350 ppm	4 hours	Rat (Rattus norvegicus)	

### Skin corrosion/irritation

Based on the available data, the classification criteria are not met. Long-term contact with the skin can dry the skin and cause cracking.

### Serious eye damage/irritation

Mixture is classified as eye irritant, category 2.

### Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

### Germ cell mutagenicity

Based on available data the classification criteria are not met.

### Carcinogenicity

Based on available data the classification criteria are not met.

### Reproductive toxicity

Based on available data the classification criteria are not met.

### Toxicity for specific target organ - single exposure

The mixture is classified as toxic to specific target organs after single exposure, category 3. Inhalation of vapors or aerosol can cause headache, drowsiness or dizziness, malaise, up to narcotic states.

### Toxicity for specific target organ - 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

It does not contain substances causing disruption of the endocrine system. Inhaling the aerosol can cause headaches, fatigue, drowsiness, malaise and even narcotic conditions, exceptional irritation of the mucous membranes and respiratory tract. Do not inhale the aerosol. Irritating to the eyes (watering, burning, itching, redness). Frequent or long-term contact with the skin causes drying or cracking of the skin to dermatitis.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

The ecotoxic effects of the mixture were not assessed. Observe the usual environmental precautions.

##### Acute toxicity

2-methoxy-1-methylethyl acetate				
Parameter	Value	Exposure time	Species	Environment
LC <sub>50</sub>	161 mg/l	96 hours	Fish (Pimephales promelas)	
LC <sub>50</sub>	100 mg/l	96 hours	Fish (Salmo gairdneri)	
EC <sub>50</sub>	>500 mg/l	24 hours	Invertebrates (Daphnia magna)	
EC <sub>50</sub>	>500 mg/l	48 hours	Invertebrates (Daphnia magna)	

acetone				
Parameter	Value	Exposure time	Species	Environment
LC <sub>50</sub>	5540 mg/l	96 hours	Fish	
EC <sub>50</sub>	8800 mg/l	48 hours	Invertebrates (Daphnia magna)	

n-butyl acetate				
Parameter	Value	Exposure time	Species	Environment
LC <sub>50</sub>	141 mg/l	48 hours	Fish (Leuciscus idus)	
EC <sub>50</sub>	72.8 mg/l	24 hours	Invertebrates (Daphnia magna)	

xylene				
Parameter	Value	Exposure time	Species	Environment
LC <sub>50</sub>	26.7 mg/l	96 hours	Fish (Poecilia reticulata)	
EC <sub>50</sub>	75.49 mg/l	24 hours	Invertebrates (Daphnia magna)	

#### 12.2. Persistence and degradability

The mixture is partially biodegradable.

#### 12.3. Bioaccumulative potential

Not determined, bioaccumulation is unlikely.

#### 12.4. Mobility in soil

The mixture is soluble in water.

#### 12.5. Results of PBT and vPvB assessment

The mixture does not contain substances from the PBT and vPvB groups according to Annex XIII of the REACH Regulation, as amended.

#### 12.6. Endocrine disrupting properties

Substances with these properties in accordance with the criteria set out in Commission Regulation (EU) 2017/2100 or (EU) 2018/605 are not included.

#### 12.7. Other adverse effects

Water hazard class 1 (self-assessment): hazardous for water. The mixture is dangerous for the environment, even if small quantities can contaminate drinking water sources. Do not get into the ground, underground or surface water or sewers. Observe the usual precautions to protect the environment.

### SECTION 13: Disposal considerations

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

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### 13.1. Waste treatment methods

Dispose of as hazardous waste. Dispose of at an authorized person or to a hazardous waste collection yard. Dispose of mixture and packaging residues in accordance with local waste disposal regulations. Dispose of contaminated packaging as hazardous waste.

#### Waste management legislation

Act No. 477/2001 Coll., On Packaging, as amended. Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended.

#### Waste type code

- 14 06 03\* other solvents and solvent mixtures
- 16 05 06\* laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals

#### Packaging waste type code

- 15 01 11\* metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers
  - 15 01 10\* packaging containing residues of or contaminated by hazardous substances
- (\* ) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

## SECTION 14: Transport information

### 14.1. UN number or ID number

UN 1950

### 14.2. UN proper shipping name

AEROSOLS

### 14.3. Transport hazard class(es)

2 Gases

### 14.4. Packing group

not relevant

### 14.5. Environmental hazards

No.

### 14.6. Special precautions for user

Transport in packages that match the properties of the mixture. Observe the prescribed marking for cargo.

### 14.7. Maritime transport in bulk according to IMO instruments

Can not be used.

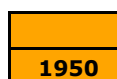
#### Additional information

Hazard identification No.

UN number

Classification code

Safety signs



5F

2.1



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### Road transport - ADR

Special provisions	190, 327, 344, 625
Limited quantities	1 L
Excepted quantities	E0

#### Packaging

Packing instructions	P207, LP200
Special packing provisions	PP87, RR6, L2
Mixed packing provisions	MP9
Transport category	2
Tunnel restriction code	(D)

#### Special provision for

packages	V14
loading, unloading and handling operation	CV9, CV12 S2

### Railway transport - RID

Special provisions	190, 327, 344, 625
Excepted quantities	E0

#### Packaging

Packing instructions	P207, LP200
Special packing provisions	PP87, RR6, L2
Mixed packing provisions	MP9
Transport category	0

#### Special provision for

packages	W14
loading, unloading and handling	CW9, CW12

### Air transport - ICAO/IATA

Packaging instructions for limited amount	Y203
Packaging instructions passenger	203
Cargo packaging instructions	203

### Marine transport - IMDG

EmS (emergency plan)	F-D, S-U
MFAG	620

## SECTION 15: Regulatory information

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

Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). Commission Delegated Regulation (EU) 2021/849 of 11 March 2021 amending, for the purposes of adapting to technical and scientific progress, Part 3 of Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labeling and packaging of substances and mixtures. REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents, as ammended. Commission Regulation (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals.

### 15.2. Chemical safety assessment

No chemical hazard assessment was performed for this mixture.

#### More information

This information only indicates the basic regulations listed in this Safety Data Sheet. Please note the possible existence of additional regulations supplementing these Regulations. We refer to all applicable national, international and local regulations and regulations.

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### SECTION 16: Other information

#### A list of standard risk phrases used in the safety data sheet

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H229	Pressurised container: May burst if heated.
H261	In contact with water releases flammable gases.

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H312+H332	Harmful in contact with skin or if inhaled.

#### Guidelines for safe handling used in the safety data sheet

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing vapours/spray.
P273	Avoid release to the environment.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

#### A list of additional standard phrases used in the safety data sheet

EUH066	Repeated exposure may cause skin dryness or cracking.
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#### Other important information about human health protection

The mixture should not be used for any purpose other than that for which it is intended (see point 1.2). Because the supplier can not control the specific conditions of use of the mixture, it is the responsibility of the user to adapt the prescribed warnings to local laws and regulations. Safety information describes the product in terms of safety and can not be considered as technical product information.

#### Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC	Identification code for each substance listed in EINECS
EC <sub>50</sub>	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry



# SAFETY DATA SHEET

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LC <sub>50</sub>	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD <sub>50</sub>	Lethal dose of a substance in which it can be expected death of 50% of the population
log K <sub>ow</sub>	Octanol-water partition coefficient
NPK	Maximum admissible concentration
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible Exposure Limit
ppm	Parts per million
Press. Gas (Comp.)	Gas under pressure: compressed gas
Press. Gas (Diss.)	Gas under pressure: dissolved gas
Press. Gas (Liq.)	Gas under pressure: liquefied gas
Press. Gas (Ref. Liq.)	Gas under pressure: refrigerated liquefied gas
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative
Acute Tox.	Acute toxicity
Aerosol	Aerosol
Eye Irrit.	Eye irritation
Flam. Gas	Flammable gas
Flam. Liq.	Flammable liquid
Flam. Sol.	Flammable solid
Press. Gas	Gases under pressure
Skin Irrit.	Skin irritation
STOT SE	Specific target organ toxicity - single exposure
Water-react.	Substance or mixture which in contact with water emits flammable gas

### Training guidelines

According to § 103 and § 104 of Act No. 262/2006 Coll., The Labor Code, as amended. Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

### Recommended restrictions of use

The mixture should not be used for any purpose other than that for which it is intended (see point 1.2). Because the specific conditions of use of the substance are beyond the control of the supplier, it is the responsibility of the user to adapt the prescribed warnings to local laws and regulations. Safety information describes the product in terms of safety and can not be considered as technical product information.

### Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

### The changes (which information has been added, deleted or modified)

Adaptation of BL updated Annex II of the REACH Regulation as amended by Commission Regulation (EU) 2020/878.

### Statement

The safety data sheet contains the data needed to ensure safety and health at work and environmental protection. These data correspond to the current state of knowledge and experience and are in accordance with applicable legal regulations. They can not be considered as a guarantee of the suitability and usability of the product for a specific application. The user is responsible for the treatment under existing laws and regulations.





## SAFETY DATA SHEET

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