



Safety data sheet




This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

ALUMINIUM SPRAY - ALUMINIUM - SPRAY

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

- 1.1 Product identifier:** ALUMINIUM SPRAY - ALUMINIUM - SPRAY
Other means of identification:
UFI: KU8W-406R-3006-MTXV
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Aluminum spray.
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
Agencja Handlowa BOLL Wojciech Dalewski Spółka Jawna
ul. Chemiczna 3
65-713 Zielona Góra - Polska
Phone: 68 451 99 99 - Fax: 68 451 99 00
huszcza@boll.pl
- 1.4 Emergency telephone number:**

SECTION 2: HAZARDS IDENTIFICATION **

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) No 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.
Aerosol 1: Flammable aerosols, Category 1, H222
Aerosol 1: Pressurised container: May burst if heated., H229
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
Eye Irrit. 2: Eye irritation, Category 2, H319
Skin Irrit. 2: Skin irritation, Category 2, H315
STOT RE 2: Specific target organ toxicity — Repeated exposure, Hazard Category 2, H373
STOT SE 3: Specific toxicity causing drowsiness and dizziness, single exposure, Category 3, H336
- 2.2 Label elements:**
CLP Regulation (EC) No 1272/2008:
Danger
-   
- Hazard statements:**
H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H373 - May cause damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.
- Precautionary statements:**

** Changes with regards to the previous version

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ALUMINIUM SPRAY - ALUMINIUM - SPRAY**SECTION 2: HAZARDS IDENTIFICATION ** (continued)**

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 spray.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331: Do NOT induce vomiting.
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 according to the separated collection system used in your municipality.

Substances that contribute to the classification

acetone; Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane; Reaction mass of ethylbenzene and xylene

UFI: KU8W-406R-3006-MTXV

2.3 Other hazards:

Product fails to meet PBT/vPvB criteria

Endocrine-disrupting properties: The product fails to meet the criteria.

*** Changes with regards to the previous version*

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

Non-applicable

3.2 Mixture:

Chemical description: Mixture composed of chemical products

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 67-64-1 EC: 200-662-2 Index: 606-001-00-8 REACH: 01-2119471330-49-XXXX	acetone⁽¹⁾ ATP CLP00		25 - <50 %
	Regulation 1272/2008	Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336; EUH066 - Danger	
CAS: 106-97-8 EC: 203-448-7 Index: 601-004-00-0 REACH: 01-2119474691-32-XXXX	Butane⁽¹⁾ ATP CLP00		10 - <25 %
	Regulation 1272/2008	Flam. Gas 1A: H220; Press. Gas: H280 - Danger	
CAS: 74-98-6 EC: 200-827-9 Index: 601-003-00-5 REACH: 01-2119486944-21-XXXX	Propane⁽¹⁾ ATP CLP00		10 - <25 %
	Regulation 1272/2008	Flam. Gas 1A: H220; Press. Gas: H280 - Danger	
CAS: Non-applicable EC: 921-024-6 Index: Non-applicable REACH: 01-2119475514-35-XXXX	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane⁽¹⁾ Self-classified		10 - <25 %
	Regulation 1272/2008	Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 2: H225; Skin Irrit. 2: H315; STOT SE 3: H336 - Danger	
CAS: Non-applicable EC: 905-588-0 Index: Non-applicable REACH: 01-2119539452-40-XXXX	Reaction mass of ethylbenzene and xylene⁽¹⁾ Self-classified		2,5 - <10 %
	Regulation 1272/2008	Acute Tox. 4: H312+H332; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT RE 2: H373; STOT SE 3: H335 - Danger	

⁽¹⁾ Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2020/878

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ALUMINIUM SPRAY - ALUMINIUM - SPRAY

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Identification	Chemical name/Classification		Concentration
CAS: 75-28-5 EC: 200-857-2 Index: 601-004-00-0 REACH: 01-2119485395-27-XXXX	Isobutane⁽¹⁾	ATP CLP00	2,5 - <10 %
	Regulation 1272/2008	Flam. Gas 1A: H220; Press. Gas: H280 - Danger	
CAS: 7429-90-5 EC: 231-072-3 Index: 013-002-00-1 REACH: 01-2119529243-45-XXXX	Aluminium powder (stabilised)⁽¹⁾	Self-classified	2,5 - <10 %
	Regulation 1272/2008	Flam. Sol. 1: H228 - Danger	

⁽¹⁾ Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2020/878

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Other information:

Identification	Specific concentration limit
Reaction mass of ethylbenzene and xylene CAS: Non-applicable EC: 905-588-0	% (w/w) >=10: STOT RE 2 - H373
Aluminium powder (stabilised) CAS: 7429-90-5 EC: 231-072-3	% (w/w) >=50: Flam. Sol. 1 - H228

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂).

Unsuitable extinguishing media:

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**ALUMINIUM SPRAY - ALUMINIUM - SPRAY****SECTION 5: FIREFIGHTING MEASURES (continued)**

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures:****For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling:****A.- General precautions for safe use**

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

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SECTION 7: HANDLING AND STORAGE (continued)

A.- Technical measures for storage

Minimum Temp.:	5 °C
Maximum Temp.:	25 °C
Maximum time:	24 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC, Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification		Occupational exposure limits		
acetone CAS: 67-64-1 EC: 200-662-2		IOELV (8h)	500 ppm	1210 mg/m ³
		IOELV (STEL)		
Reaction mass of ethylbenzene and xylene CAS: Non-applicable EC: 905-588-0		IOELV (8h)	50 ppm	221 mg/m ³
		IOELV (STEL)	100 ppm	442 mg/m ³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
acetone CAS: 67-64-1 EC: 200-662-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	186 mg/kg	Non-applicable
	Inhalation	Non-applicable	2420 mg/m ³	1210 mg/m ³	Non-applicable
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane CAS: Non-applicable EC: 921-024-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	773 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2035 mg/m ³	Non-applicable
Reaction mass of ethylbenzene and xylene CAS: Non-applicable EC: 905-588-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	212 mg/kg	Non-applicable
	Inhalation	442 mg/m ³	442 mg/m ³	221 mg/m ³	221 mg/m ³
Aluminium powder (stabilised) CAS: 7429-90-5 EC: 231-072-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	3,72 mg/m ³	3,72 mg/m ³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
acetone CAS: 67-64-1 EC: 200-662-2	Oral	Non-applicable	Non-applicable	62 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	62 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	200 mg/m ³	Non-applicable
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane CAS: Non-applicable EC: 921-024-6	Oral	Non-applicable	Non-applicable	699 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	699 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	608 mg/m ³	Non-applicable
Reaction mass of ethylbenzene and xylene CAS: Non-applicable EC: 905-588-0	Oral	Non-applicable	Non-applicable	12,5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	125 mg/kg	Non-applicable
	Inhalation	260 mg/m ³	260 mg/m ³	65,3 mg/m ³	65,3 mg/m ³

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Aluminium powder (stabilised) CAS: 7429-90-5 EC: 231-072-3	Oral	Non-applicable	Non-applicable	7,9 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	Non-applicable

PNEC:

Identification					
acetone CAS: 67-64-1 EC: 200-662-2	STP	100 mg/L	Fresh water	10,6 mg/L	
	Soil	29,5 mg/kg	Marine water	1,06 mg/L	
	Intermittent	21 mg/L	Sediment (Fresh water)	30,4 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	3,04 mg/kg	
Reaction mass of ethylbenzene and xylene CAS: Non-applicable EC: 905-588-0	STP	6,58 mg/L	Fresh water	0,327 mg/L	
	Soil	2,31 mg/kg	Marine water	0,327 mg/L	
	Intermittent	0,327 mg/L	Sediment (Fresh water)	12,46 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	12,46 mg/kg	



8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment



In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have CE marking in accordance with Directive 2016/425/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases, vapours and particles	 CAT III	EN 149:2001+A1:2009 EN 405:2002+A1:2010 EN ISO 136:1998	Replace when an increase in resistance to breathing is observed and/or a smell or taste of the contaminant is detected.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Linear low-density polyethylene (LLDPE), Breakthrough time: > 480 min, Thickness: 0.062 mm)	 CAT III	EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield	 CAT II	EN 166:2002 EN 167:2002 EN 168:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection





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Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties	 CAT III	EN 1149-1:2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties	 CAT III	EN ISO 13287:2020 EN ISO 20345:2011 EN 13832-1:2019	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	90 % weight
V.O.C. density at 20 °C:	581,6 kg/m ³ (581,6 g/L)
Average carbon number:	4,64
Average molecular weight:	74,23 g/mol

With regard to Directive 2004/42/EC, this product which is ready to use has the following characteristics:

V.O.C. density at 20 °C:	581,6 kg/m ³ (581,6 g/L)
EU limit for the product (Cat. B.E):	840 g/L (2010)
Components:	Non-applicable

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Aerosol
Appearance:	Fluid
Colour:	 Silver
Odour:	Characteristic
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	-44 °C (Propellant)
Vapour pressure at 20 °C:	379969 Pa
Vapour pressure at 50 °C:	<300000 Pa (300 kPa)
Evaporation rate at 20 °C:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

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**ALUMINIUM SPRAY - ALUMINIUM - SPRAY****SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)****Product description:**

Density at 20 °C:	646 kg/m ³
Relative density at 20 °C:	0,646
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Insoluble in water
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Recipient pressure:	Non-applicable *

Flammability:

Flash Point:	Non-applicable
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	>200 °C (Propellant)
Lower flammability limit:	0,8 % Volume
Upper flammability limit:	13 % Volume

Particle characteristics:

Median equivalent diameter:	Non-applicable
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9.2 Other information:**Information with regard to physical hazard classes:**

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *

Other safety characteristics:

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

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SECTION 10: STABILITY AND REACTIVITY (continued)

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Precaution	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases. Can react violently

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

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

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for consumption. For more information see section 3
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
IARC: Reaction mass of ethylbenzene and xylene (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.

G- Specific target organ toxicity (STOT)-repeated exposure:

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- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Skin: Based on available data, the classification criteria are not met. However, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
acetone CAS: 67-64-1 EC: 200-662-2	LD50 oral	5800 mg/kg	Rat
	LD50 dermal	7426 mg/kg	Rabbit
	LC50 inhalation	76 mg/L (4 h)	Rat
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane CAS: Non-applicable EC: 921-024-6	LD50 oral	5840 mg/kg	Rat
	LD50 dermal	2920 mg/kg	Rat
	LC50 inhalation	>20 mg/L	
Butane CAS: 106-97-8 EC: 203-448-7	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	658 mg/L (4 h)	Rat
Propane CAS: 74-98-6 EC: 200-827-9	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>5 mg/L	
Reaction mass of ethylbenzene and xylene CAS: Non-applicable EC: 905-588-0	LD50 oral	2100 mg/kg	Rat
	LD50 dermal	1100 mg/kg	Rat
	LC50 inhalation	11 mg/L (4 h)	Rat
Isobutane CAS: 75-28-5 EC: 200-857-2	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>5 mg/L	
Aluminium powder (stabilised) CAS: 7429-90-5 EC: 231-072-3	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	Non-applicable	

11.2 Information on other hazards:**Endocrine disrupting properties**

Endocrine-disrupting properties: The product fails to meet the criteria.

Other information

Non-applicable

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:**Acute toxicity:**

Identification	Concentration		Species	Genus
acetone CAS: 67-64-1 EC: 200-662-2	LC50	5540 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50	8800 mg/L (48 h)	Daphnia pulex	Crustacean
	EC50	3400 mg/L (48 h)	Chlorella pyrenoidosa	Algae

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ALUMINIUM SPRAY - ALUMINIUM - SPRAY**SECTION 12: ECOLOGICAL INFORMATION (continued)**

Identification	Concentration		Species	Genus
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	LC50	5,1 mg/L (96 h)	Oncorhynchus mykiss	Fish
CAS: Non-applicable	EC50	Non-applicable		
EC: 921-024-6	EC50	Non-applicable		

Chronic toxicity:

Identification	Concentration		Species	Genus
acetone	NOEC	Non-applicable		
CAS: 67-64-1 EC: 200-662-2	NOEC	2212 mg/L	Daphnia magna	Crustacean
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	NOEC	Non-applicable		
CAS: Non-applicable EC: 921-024-6	NOEC	0,17 mg/L	Daphnia magna	Crustacean
Reaction mass of ethylbenzene and xylene	NOEC	1,3 mg/L	Oncorhynchus mykiss	Fish
CAS: Non-applicable EC: 905-588-0	NOEC	1,17 mg/L	Ceriodaphnia dubia	Crustacean

12.2 Persistence and degradability:**Substance-specific information:**

Identification	Degradability		Biodegradability	
acetone	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 67-64-1	COD	Non-applicable	Period	28 days
EC: 200-662-2	BOD5/COD	Non-applicable	% Biodegradable	96 %
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	BOD5	Non-applicable	Concentration	Non-applicable
CAS: Non-applicable	COD	Non-applicable	Period	28 days
EC: 921-024-6	BOD5/COD	Non-applicable	% Biodegradable	98 %

12.3 Bioaccumulative potential:**Substance-specific information:**

Identification	Bioaccumulation potential	
acetone	BCF	1
CAS: 67-64-1	Pow Log	-0.24
EC: 200-662-2	Potential	Low
Butane	BCF	33
CAS: 106-97-8	Pow Log	2.89
EC: 203-448-7	Potential	Moderate
Propane	BCF	13
CAS: 74-98-6	Pow Log	2.86
EC: 200-827-9	Potential	Low
Reaction mass of ethylbenzene and xylene	BCF	9
CAS: Non-applicable	Pow Log	2.77
EC: 905-588-0	Potential	Low
Isobutane	BCF	27
CAS: 75-28-5	Pow Log	2.76
EC: 200-857-2	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
acetone	Koc	1	Henry	2,93 Pa·m ³ /mol
CAS: 67-64-1	Conclusion	Very High	Dry soil	Yes
EC: 200-662-2	Surface tension	2,304E-2 N/m (25 °C)	Moist soil	Yes
Butane	Koc	900	Henry	96258,75 Pa·m ³ /mol
CAS: 106-97-8	Conclusion	Low	Dry soil	Yes
EC: 203-448-7	Surface tension	1,187E-2 N/m (25 °C)	Moist soil	Yes

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ALUMINIUM SPRAY - ALUMINIUM - SPRAY**SECTION 12: ECOLOGICAL INFORMATION (continued)**

Identification	Absorption/desorption		Volatility	
Propane	Koc	460	Henry	71636,78 Pa·m ³ /mol
CAS: 74-98-6	Conclusion	Moderate	Dry soil	Yes
EC: 200-827-9	Surface tension	7,02E-3 N/m (25 °C)	Moist soil	Yes
Isobutane	Koc	35	Henry	120576,75 Pa·m ³ /mol
CAS: 75-28-5	Conclusion	Very High	Dry soil	Yes
EC: 200-857-2	Surface tension	9,84E-3 N/m (25 °C)	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product fails to meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods:**

Code	Description	Waste class (Regulation (EU) No 1357/2014)
16 05 04*	gases in pressure containers (including halons) containing hazardous substances	Dangerous

Type of waste (Regulation (EU) No 1357/2014):

HP3 Flammable, HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION**Transport of dangerous goods by land:**

With regard to ADR 2021 and RID 2021:



- 14.1 UN number or ID number:** UN1950
14.2 UN proper shipping name: AEROSOLS
14.3 Transport hazard class(es): 2
Labels: 2.1
14.4 Packing group: N/A
14.5 Environmental hazards: No
14.6 Special precautions for user
Special regulations: 190, 327, 344, 625
Tunnel restriction code: D
Physico-Chemical properties: see section 9
Limited quantities: 1 L
14.7 Maritime transport in bulk according to IMO instruments: Non-applicable

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ALUMINIUM SPRAY - ALUMINIUM - SPRAY**SECTION 14: TRANSPORT INFORMATION (continued)****Transport of dangerous goods by sea:**

With regard to IMDG 40-20:



- 14.1 UN number or ID number:** UN1950
14.2 UN proper shipping name: AEROSOLS
14.3 Transport hazard class(es): 2
Labels: 2.1
14.4 Packing group: N/A
14.5 Marine pollutant: No
14.6 Special precautions for user
Special regulations: 63, 959, 190, 277, 327, 344
EmS Codes: F-D, S-U
Physico-Chemical properties: see section 9
Limited quantities: 1 L
Segregation group: Non-applicable
14.7 Maritime transport in bulk according to IMO instruments: Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2022:



- 14.1 UN number or ID number:** UN1950
14.2 UN proper shipping name: AEROSOLS
14.3 Transport hazard class(es): 2
Labels: 2.1
14.4 Packing group: N/A
14.5 Environmental hazards: No
14.6 Special precautions for user
Physico-Chemical properties: see section 9
14.7 Maritime transport in bulk according to IMO instruments: Non-applicable

SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
P3a	FLAMMABLE AEROSOLS	150	500

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

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**ALUMINIUM SPRAY - ALUMINIUM - SPRAY****SECTION 15: REGULATORY INFORMATION (continued)**

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors: Contains acetone. Product under the provisions of Article 9. However, products that contain explosives precursors only to such a small extent and in such complex mixtures that the extraction of the explosives precursors is technically extremely difficult should be excluded from the scope of this Regulation.

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION**Legislation related to safety data sheets:**

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

- Precautionary statements
- Supplementary information

Texts of the legislative phrases mentioned in section 2:

H222: Extremely flammable aerosol.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

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

H412: Harmful to aquatic life with long lasting effects.

H229: Pressurised container: May burst if heated.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled.

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

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

Eye Irrit. 2: H319 - Causes serious eye irritation.

Flam. Gas 1A: H220 - Extremely flammable gas.

Flam. Liq. 2: H225 - Highly flammable liquid and vapour.

Flam. Liq. 3: H226 - Flammable liquid and vapour.

Flam. Sol. 1: H228 - Flammable solid.

Press. Gas: H280 - Contains gas under pressure, may explode if heated.

Skin Irrit. 2: H315 - Causes skin irritation.

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

STOT SE 3: H335 - May cause respiratory irritation.

STOT SE 3: H336 - May cause drowsiness or dizziness.

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

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SECTION 16: OTHER INFORMATION (continued)

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -