

SAFETY DATA SHEET



according to 29 CFR 1910.1200 and ANSI standard Z400.1-2010

Aluminium Spray A-100

Section 1. Identification

GHS product identifier : Aluminium Spray A-100

Product code : 110500

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

Not available.

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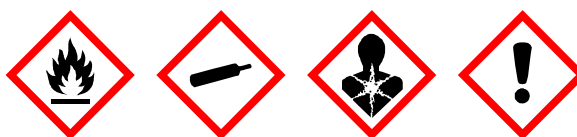
Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : H222 - Extremely flammable aerosol.
H280 - Contains gas under pressure; may explode if heated.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : P280 - Wear protective gloves. Wear eye or face protection.
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.
P271 - Use only outdoors or in a well-ventilated area.
P251 - Pressurized container: Do not pierce or burn, even after use.

Response : Not applicable.

Storage : Not applicable.

Disposal : P501 - Dispose of waste according to applicable legislation.

Section 2. Hazards identification

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
acetone	≥10 - ≤25	67-64-1
ethyl acetate	≥10 - ≤25	141-78-6
Solvent naphtha (petroleum), light arom.	≤10	64742-95-6
xylene	≤9.3	1330-20-7
n-butyl acetate	≤10	123-86-4
Hydrocarbons, C10-13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics	≤10	-
Fatty acids, C14-18 and C16-18-unsatd., maleated	<1	85711-46-2
methyl methacrylate	<1	80-62-6
n-butyl methacrylate	<1	97-88-1
maleic anhydride	<0.1	108-31-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Section 4. First aid measures

- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
acetone	ACGIH TLV (United States, 1/2021). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 750 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 2400 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2020). TWA: 250 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 2400 mg/m ³ 8 hours.
ethyl acetate	ACGIH TLV (United States, 1/2021). TWA: 400 ppm 8 hours. TWA: 1440 mg/m ³ 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 400 ppm 8 hours. TWA: 1400 mg/m ³ 8 hours. NIOSH REL (United States, 10/2020). TWA: 400 ppm 10 hours. TWA: 1400 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 400 ppm 8 hours. TWA: 1400 mg/m ³ 8 hours.
Solvent naphtha (petroleum), light arom.	None.
xylene	ACGIH TLV (United States, 1/2021). [Xylene] TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m ³ 15 minutes. OSHA PEL 1989 (United States, 3/1989). [Xylenes (o-, m-, p-isomers)] TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 655 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). [Xylenes] TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours.
n-butyl acetate	OSHA PEL 1989 (United States, 3/1989). TWA: 150 ppm 8 hours. TWA: 710 mg/m ³ 8 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2020). TWA: 150 ppm 10 hours. TWA: 710 mg/m ³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018).

Section 8. Exposure controls/personal protection

	<p>TWA: 150 ppm 8 hours. TWA: 710 mg/m³ 8 hours. ACGIH TLV (United States, 1/2021). [Butyl acetates] STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.</p>
Hydrocarbons, C10-13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics	None.
Fatty acids, C14-18 and C16-18-unsatd., maleated methyl methacrylate	None.
	<p>ACGIH TLV (United States, 1/2021). Skin sensitizer. TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hours. TWA: 410 mg/m³ 8 hours. NIOSH REL (United States, 10/2020). TWA: 100 ppm 10 hours. TWA: 410 mg/m³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 410 mg/m³ 8 hours.</p>
n-butyl methacrylate	None.
maleic anhydride	<p>ACGIH TLV (United States, 1/2021). Skin sensitizer. Inhalation sensitizer. TWA: 0.01 mg/m³ 8 hours. Form: Inhalable fraction and vapor OSHA PEL 1989 (United States, 3/1989). TWA: 0.25 ppm 8 hours. TWA: 1 mg/m³ 8 hours. NIOSH REL (United States, 10/2020). TWA: 1 mg/m³ 10 hours. TWA: 0.25 ppm 10 hours. OSHA PEL (United States, 5/2018). TWA: 0.25 ppm 8 hours. TWA: 1 mg/m³ 8 hours.</p>

Appropriate engineering controls

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
<u>Skin protection</u>	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Recommended : 1 - 4 hours (breakthrough time): nitrile rubber 4 - 8 hours (breakthrough time): Viton®/butyl rubber
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended : organic vapor (Type AX) and particulate filter

Section 9. Physical and chemical properties

Appearance

Physical state	: Aerosol.
Color	: Silver.
Odor	: Characteristic. [Strong]
Odor threshold	: Not available.
pH	: Not applicable.
Melting point/freezing point	: Not applicable.
Boiling point, initial boiling point, and boiling range	: Not available.
Flash point	: Closed cup: -97°C (-142.6°F)
Fire point	: >200°C (>392°F)
Evaporation rate	: Not available.
Flammability	: Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge. Highly flammable in the presence of the following materials or conditions: heat.
Lower and upper explosion limit/flammability limit	: Not available.
Vapor pressure	: Not available.
Relative vapor density	: Not available.
Relative density	: Not applicable.
Density	: 0.9 g/cm ³ [20°C (68°F)]
Solubility(ies)	: Not available.
Solubility in water	: Not available.
Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.

Section 9. Physical and chemical properties

Decomposition temperature : Not available.
Heat of combustion : 25.78 kJ/g
Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)
Flow time (ISO 2431) : Not available.

Particle characteristics

Median particle size : Not applicable.

Aerosol product

Type of aerosol : Spray

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
acetone	LD50 Oral	Rat	5800 mg/kg	-
ethyl acetate	LD50 Oral	Rat	5620 mg/kg	-
xylene	LD50 Oral	Mouse	2119 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
	LDLo Oral	Human	50 mg/kg	-
	LDLo Oral	Human	50 mg/kg	-
	TDLo Dermal	Mouse	727.3 uL/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
n-butyl acetate	LC50 Inhalation Vapor	Rat - Male, Female	>21 mg/l	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
methyl methacrylate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	7872 mg/kg	-

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n-butyl methacrylate	LC50 Inhalation Gas.	Rat	4910 ppm	4 hours
	LD50 Oral	Rat	16 g/kg	-
maleic anhydride	LD50 Dermal	Rabbit	2620 mg/kg	-
	LD50 Oral	Rat	400 mg/kg	-

Acute toxicity estimates

Route	ATE value
Dermal	20000 mg/kg
Inhalation (vapors)	200 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
acetone	Eyes - Mild irritant	Human	-	186300 ppm	-
	Eyes - Mild irritant	Rabbit	-	10 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
n-butyl methacrylate	Skin - Mild irritant	Rabbit	-	500 uL	-
maleic anhydride	Eyes - Severe irritant	Rabbit	-	1 %	-

Conclusion/Summary

Skin : Irritating to skin.
Eyes : Irritating to eyes.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
xylene	-	3	-
methyl methacrylate	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
acetone	Category 3	-	Narcotic effects
ethyl acetate	Category 3	-	Narcotic effects
Solvent naphtha (petroleum), light arom.	Category 3	-	Respiratory tract irritation
xylene	Category 3	-	Narcotic effects
	Category 3	-	Respiratory tract irritation
n-butyl acetate	Category 3	-	Narcotic effects
methyl methacrylate	Category 3	-	Respiratory tract irritation
n-butyl methacrylate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
xylene	Category 2	-	-
maleic anhydride	Category 1	inhalation	respiratory system

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), light arom.	ASPIRATION HAZARD - Category 1
xylene	ASPIRATION HAZARD - Category 1
Hydrocarbons, C10-13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness

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Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General	: May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
acetone	Acute EC50 11493300 µg/l Fresh water	Algae - <i>Navicula seminulum</i>	96 hours
	Acute EC50 11727900 µg/l Fresh water	Algae - <i>Navicula seminulum</i>	96 hours
	Acute EC50 7200000 µg/l Fresh water	Algae - <i>Selenastrum sp.</i>	96 hours
	Acute EC50 20.565 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute LC50 4.42589 ml/L Marine water	Crustaceans - <i>Acartia tonsa</i> - Copepodid	48 hours
	Acute LC50 7550000 µg/l Fresh water	Crustaceans - <i>Asellus aquaticus</i>	48 hours
	Acute LC50 8098000 µg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i> - Neonate	48 hours
	Acute LC50 11.26487 ml/L Fresh water	Crustaceans - <i>Gammarus pulex</i> -	48 hours

Section 12. Ecological information

		Juvenile (Fledgling, Hatchling, Weanling)	
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - <i>Gammarus pulex</i>	48 hours
	Acute LC50 7460000 µg/l Fresh water	Daphnia - <i>Daphnia cucullata</i>	48 hours
	Acute LC50 7810000 µg/l Fresh water	Daphnia - <i>Daphnia cucullata</i>	48 hours
	Acute LC50 10000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 9218000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 8800000 µg/l Fresh water	Daphnia - <i>Daphnia pulex</i>	48 hours
	Acute LC50 8000 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Acute LC50 7280000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute LC50 8120000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute LC50 6210000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute LC50 5600 ppm Fresh water	Fish - <i>Poecilia reticulata</i>	96 hours
	Chronic NOEC 0.5 ml/L Marine water	Algae - <i>Karenia brevis</i>	96 hours
	Chronic NOEC 100 µl/L Marine water	Algae - <i>Skeletonema costatum</i>	72 hours
	Chronic NOEC 100 µl/L Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - <i>Daphniidae</i>	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
	Chronic NOEC 5 µg/l Marine water	Fish - <i>Gasterosteus aculeatus</i> - Larvae	42 days
ethyl acetate	Acute EC50 2500000 µg/l Fresh water	Algae - <i>Selenastrum sp.</i>	96 hours
	Acute LC50 750000 µg/l Fresh water	Crustaceans - <i>Gammarus pulex</i>	48 hours
	Acute LC50 154000 µg/l Fresh water	Daphnia - <i>Daphnia cucullata</i>	48 hours
	Acute LC50 212500 µg/l Fresh water	Fish - <i>Heteropneustes fossilis</i>	96 hours
	Chronic NOEC 2400 µg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Chronic NOEC 75.6 mg/l Fresh water	Fish - <i>Pimephales promelas</i> - Embryo	32 days
xylene	Acute EC50 90 mg/l Fresh water	Crustaceans - <i>Cypris subglobosa</i>	48 hours
	Acute LC50 8.5 ppm Marine water	Crustaceans - <i>Palaemonetes pugio</i> - Adult	48 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - <i>Palaemonetes pugio</i>	48 hours
	Acute LC50 16940 µg/l Fresh water	Fish - <i>Carassius auratus</i>	96 hours
	Acute LC50 15700 µg/l Fresh water	Fish - <i>Lepomis macrochirus</i> - Juvenile (Fledgling, Hatchling,	96 hours

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		Weanling)	
	Acute LC50 20870 µg/l Fresh water	Fish - <i>Lepomis macrochirus</i>	96 hours
	Acute LC50 19000 µg/l Fresh water	Fish - <i>Lepomis macrochirus</i>	96 hours
	Acute LC50 13400 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
n-butyl acetate	Acute LC50 32 mg/l Marine water	Crustaceans - <i>Artemia salina</i>	48 hours
	Acute LC50 62000 µg/l Fresh water	Fish - <i>Danio rerio</i>	96 hours
	Acute LC50 100000 µg/l Fresh water	Fish - <i>Lepomis macrochirus</i>	96 hours
	Acute LC50 185000 µg/l Marine water	Fish - <i>Menidia beryllina</i>	96 hours
	Acute LC50 18000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
methyl methacrylate	Acute LC50 130000 µg/l Fresh water	Fish - <i>Pimephales promelas</i> - Adult	96 hours
n-butyl methacrylate	Chronic NOEC 2.6 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
maleic anhydride	Acute LC50 230 ppm Fresh water	Fish - <i>Gambusia affinis</i> - Adult	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
acetone	-0.23	-	Low
ethyl acetate	0.68	30	Low
Solvent naphtha (petroleum), light arom.	-	10 to 2500	High
xylene	3.12	8.1 to 25.9	Low
n-butyl acetate	2.3	-	Low
methyl methacrylate	1.38	-	Low
n-butyl methacrylate	2.99	-	Low
maleic anhydride	-2.78	-	Low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.






Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Acetone (I)	67-64-1	Listed	U002
Ethyl acetate (I)	141-78-6	Listed	U112
Xylene	1330-20-7	Listed	U239

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	Aerosols	AEROSOLS	AEROSOLS	AEROSOLS	Aerosols, flammable
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

Additional information

DOT Classification : **Reportable quantity** 1818.2 lbs / 825.45 kg. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
Limited quantity Yes.
Packaging instruction Exceptions: 306. Non-bulk: None. Bulk: None.
Quantity limitation Passenger aircraft/rail: 75 kg. Cargo aircraft: 150 kg.
Special provisions N82

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).
Explosive Limit and Limited Quantity Index 1
Passenger Carrying Road or Rail Index 75
Special provisions 80, 107

Mexico Classification : **Special provisions** 63, 190, 277, 327, 344

IMDG : **Emergency schedules** F-D, S-U
Special provisions 63, 190, 277, 327, 344, 381, 959

IATA : **Quantity limitation** Passenger and Cargo Aircraft: 75 kg. Packaging instructions: 203. Cargo Aircraft Only: 150 kg. Packaging instructions: 203. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y203.
Special provisions A145, A167, A802

Section 14. Transport information

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR:** n-butyl methacrylate
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 311: xylene; n-butyl acetate; methyl methacrylate; maleic anhydride
Clean Air Act (CAA) 112 regulated flammable substances: propane; butane

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : FLAMMABLE AEROSOLS - Category 1
 GASES UNDER PRESSURE - Compressed gas
 EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Composition/information on ingredients

Name	%	Classification
acetone	≥10 - ≤25	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
propane	≥10 - ≤25	FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Compressed gas
ethyl acetate	≥10 - ≤25	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
butane	≥10 - ≤25	FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Compressed gas

Section 15. Regulatory information

Solvent naphtha (petroleum), light arom.	≤10	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1
xylene	≤9.3	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1
aluminium powder (stabilised)	≤10	FLAMMABLE SOLIDS - Category 1 SUBSTANCES AND MIXTURES, WHICH IN CONTACT WITH WATER, EMIT FLAMMABLE GASES - Category 2
n-butyl acetate	≤10	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Hydrocarbons, C10-13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics	≤10	ASPIRATION HAZARD - Category 1
Fatty acids, C14-18 and C16-18-unsatd., maleated	<1	SKIN IRRITATION - Category 2 SKIN SENSITIZATION - Category 1
methyl methacrylate	<1	FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
n-butyl methacrylate	<1	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
maleic anhydride	<0.1	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	xylene	1330-20-7	≤9.3
	Aluminium powder (stabilized)	7429-90-5	≤10
Supplier notification	xylene	1330-20-7	≤9.3
	Aluminium powder (stabilized)	7429-90-5	≤10

Section 15. Regulatory information

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts	: The following components are listed: ACETONE; PROPANE; ETHYL ACETATE; BUTANE; XYLENE; ALUMINUM; BUTYL ACETATE
New York	: The following components are listed: Acetone; Ethyl acetate; Xylene mixed; Butyl acetate
New Jersey	: The following components are listed: ACETONE; PROPANE; ETHYL ACETATE; BUTANE; XYLENES; ALUMINUM; n-BUTYL ACETATE
Pennsylvania	: The following components are listed: 2-PROPANONE; PROPANE; ACETIC ACID ETHYL ESTER; BUTANE; BENZENE, DIMETHYL-; ACETIC ACID, BUTYL ESTER

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: All components are listed or exempted.
Canada	: Not determined.
China	: All components are listed or exempted.
Eurasian Economic Union	: Russian Federation inventory : Not determined.
Japan	: Japan inventory (CSCL) : Not determined. Japan inventory (ISHL) : Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: All components are active or exempted.
Viet Nam	: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	2
Flammability		3
Physical hazards		3

Section 16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



Procedure used to derive the classification

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	On basis of test data
EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method

History

Date of printing	: 11/28/2023
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Date of previous issue	: No previous validation
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Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) N/A = Not available SGG = Segregation Group UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

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