

SAFETY DATA SHEET



according to WHMIS 2015 and ANSI Z400.1-2010

Aluminium Spray A-100

Section 1. Identification

Product identifier : Aluminium Spray A-100
Product code : 110500

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

Identified uses

Not available.

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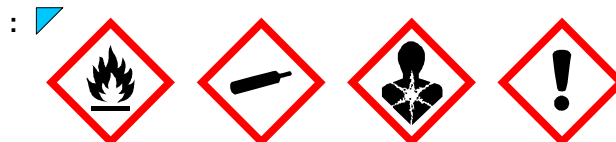
Emergency telephone number : +1 866 928 0789 (24h - Toll free)
TRANSPORT EMERGENCY CONTACT :+1 866 928 0789 ((24h - Toll free)

Section 2. Hazard identification


Classification of the substance or mixture :  FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1A
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

Section 2. Hazard identification

- 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.
P260 - Do not breathe dust or mist.
P264 - Wash thoroughly after handling.
P251 - Do not pierce or burn, even after use.
- Response** : P314 - Get medical advice or attention if you feel unwell.
P304 + P340, P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P302 + P352 - IF ON SKIN: Wash with plenty of water.
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.
- Storage** : P405 - Store locked up.
P410 + P403 - Protect from sunlight.
P410 + P412 - Do not expose to temperatures exceeding 50 °C/122 °F.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
- Disposal** : P501 - Dispose of waste according to applicable legislation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

| Ingredient name | % (v/v) | CAS number |
|--|-----------|------------|
| acetone | ≥10 - ≤30 | 67-64-1 |
| ethyl acetate | ≥10 - ≤30 | 141-78-6 |
| Solvent naphtha (petroleum), light arom. | ≥5 - ≤10 | 64742-95-6 |
| xylene | ≥5 - ≤10 | 1330-20-7 |
| n-butyl acetate | ≥5 - ≤10 | 123-86-4 |
| Hydrocarbons, C10-13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics | ≥5 - ≤10 | - |
| Fatty acids, C14-18 and C16-18-unsatd., maleated | ≥0.1 - ≤1 | 85711-46-2 |
| methyl methacrylate | ≥0.1 - ≤1 | 80-62-6 |
| n-butyl methacrylate | ≥0.1 - ≤1 | 97-88-1 |
| maleic anhydride | ≤0.1 | 108-31-6 |

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

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.
- 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.

Section 4. First-aid measures

- 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.

- 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

Section 6. Accidental release measures

- 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 | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1200 mg/m³ 8 hours. 15 min OEL: 1800 mg/m³ 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 6/2021). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 6/2021). TWAEV: 500 ppm 8 hours. TWAEV: 1190 mg/m³ 8 hours. STEV: 1000 ppm 15 minutes. STEV: 2380 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.</p> |
| ethyl acetate | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1440 mg/m³ 8 hours.</p> |

Section 8. Exposure controls/personal protection

xylene

8 hrs OEL: 400 ppm 8 hours.
CA British Columbia Provincial (Canada, 6/2021).

TWA: 150 ppm 8 hours.

CA Ontario Provincial (Canada, 6/2019).

TWA: 400 ppm 8 hours.

CA Quebec Provincial (Canada, 6/2021).

TWAEV: 400 ppm 8 hours.

TWAEV: 1440 mg/m³ 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 500 ppm 15 minutes.

TWA: 400 ppm 8 hours.

**CA Alberta Provincial (Canada, 6/2018).
 [Dimethylbenzene]**

8 hrs OEL: 100 ppm 8 hours.

15 min OEL: 651 mg/m³ 15 minutes.

15 min OEL: 150 ppm 15 minutes.

8 hrs OEL: 434 mg/m³ 8 hours.

CA British Columbia Provincial (Canada, 6/2021). [Xylene (o, m & p isomers)]

TWA: 100 ppm 8 hours.

STEL: 150 ppm 15 minutes.

**CA Quebec Provincial (Canada, 6/2021).
 [Xylene]**

TWAEV: 100 ppm 8 hours.

TWAEV: 434 mg/m³ 8 hours.

STEV: 150 ppm 15 minutes.

STEV: 651 mg/m³ 15 minutes.

**CA Ontario Provincial (Canada, 6/2019).
 [Xylene (o-, m-, p-isomers)]**

STEL: 150 ppm 15 minutes.

TWA: 100 ppm 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013). [Xylene]

STEL: 150 ppm 15 minutes.

TWA: 100 ppm 8 hours.

n-butyl acetate

CA Alberta Provincial (Canada, 6/2018).

15 min OEL: 200 ppm 15 minutes.

15 min OEL: 950 mg/m³ 15 minutes.

8 hrs OEL: 150 ppm 8 hours.

8 hrs OEL: 713 mg/m³ 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 200 ppm 15 minutes.

TWA: 150 ppm 8 hours.

**CA Ontario Provincial (Canada, 6/2019).
 [butyl acetates, all isomers]**

STEL: 150 ppm 15 minutes.

TWA: 50 ppm 8 hours.

CA British Columbia Provincial (Canada, 6/2021). [butyl acetate, all isomers]

STEL: 150 ppm 15 minutes.

TWA: 50 ppm 8 hours.

**CA Quebec Provincial (Canada, 6/2021).
 [butyl acetates]**

STEV: 150 ppm 15 minutes.

TWAEV: 50 ppm 8 hours.

Section 8. Exposure controls/personal protection

| | |
|----------------------|--|
| methyl methacrylate | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 205 mg/m³ 8 hours. 8 hrs OEL: 50 ppm 8 hours. 15 min OEL: 410 mg/m³ 15 minutes. 15 min OEL: 100 ppm 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 6/2021). Skin sensitizer. TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 6/2021). Skin sensitizer. TWAEV: 50 ppm 8 hours. STEV: 100 ppm 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). Skin sensitizer. STEL: 100 ppm 15 minutes. TWA: 50 ppm 8 hours.</p> |
| n-butyl methacrylate | <p>CA British Columbia Provincial (Canada, 6/2021). TWA: 50 ppm 8 hours.</p> |
| maleic anhydride | <p>CA Ontario Provincial (Canada, 6/2019). TWA: 0.01 mg/m³ 8 hours. Form: Inhalable fraction and vapour.</p> <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 0.1 ppm 8 hours. 8 hrs OEL: 0.4 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 6/2021). Skin sensitizer. Inhalation sensitizer. TWA: 0.1 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 6/2021). Skin sensitizer. TWAEV: 0.25 ppm 8 hours. TWAEV: 1 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). Skin sensitizer. STEL: 0.3 ppm 15 minutes. TWA: 0.1 ppm 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

Section 8. Exposure controls/personal protection

- 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.
- 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.
- Skin protection**
- 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** : -44°C (-47.2°F)
- 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.
- Solubility(ies)** :

Section 9. Physical and chemical properties

Not available.

| | |
|---|--|
| Solubility in water | : Not available. |
| Partition coefficient: n-octanol/water | : Not applicable. |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| Heat of combustion | : 25.78 kJ/g |
| Viscosity | : Kinematic (40°C (104°F)): >20.5 mm ² /s (>20.5 cSt) |
| Flow time (ISO 2431) | : Not available. |
| <u>Particle characteristics</u> | |
| Median particle size | : Not applicable. |
| <u>Aerosol product</u> | |
| 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 | - |
| n-butyl acetate | TDLo Dermal | Rabbit | 4300 mg/kg | - |
| | LD50 Dermal | Rabbit | >17600 mg/kg | - |
| | LD50 Oral | Rat | 10768 mg/kg | - |

Section 11. Toxicological information

| | | | | |
|----------------------|----------------------|--------|------------|---------|
| methyl methacrylate | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | 7872 mg/kg | - |
| 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 | IARC | NTP | ACGIH |
|-------------------------|------|-----|-------|
| acetone | - | - | A4 |
| xylene | 3 | - | A4 |
| methyl methacrylate | 3 | - | A4 |
| maleic anhydride | - | - | A4 |

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 |
| xylene | 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.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|---------------------|---|
| 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. |

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. |

Numerical measures of toxicity

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-------------------------|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| Aluminium Spray A-100 | N/A | 20000 | N/A | 200 | N/A |
| acetone | 5800 | N/A | N/A | N/A | N/A |
| ethyl acetate | 5620 | N/A | N/A | N/A | N/A |
| xylene | N/A | 1100 | N/A | 11 | N/A |
| n-butyl acetate | 10768 | N/A | N/A | N/A | N/A |

Section 11. Toxicological information

| | | | | | |
|----------------------|-------|------|-----|-----|-----|
| methyl methacrylate | 7872 | N/A | N/A | N/A | N/A |
| n-butyl methacrylate | 16000 | N/A | N/A | N/A | N/A |
| maleic anhydride | 400 | 2620 | N/A | N/A | N/A |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|--------------------------------------|--|----------|
| acetone | Acute EC50 11493300 µg/l Fresh water | Algae - Navicula seminulum | 96 hours |
| | Acute EC50 11727900 µg/l Fresh water | Algae - Navicula seminulum | 96 hours |
| | Acute EC50 7200000 µg/l Fresh water | Algae - Selenastrum sp. | 96 hours |
| | Acute EC50 20.565 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Acute LC50 4.42589 ml/L Marine water | Crustaceans - Acartia tonsa - Copepodid | 48 hours |
| | Acute LC50 7550000 µg/l Fresh water | Crustaceans - Asellus aquaticus | 48 hours |
| | Acute LC50 8098000 µg/l Fresh water | Crustaceans - Ceriodaphnia dubia - Neonate | 48 hours |
| | Acute LC50 11.26487 ml/L Fresh water | Crustaceans - Gammarus pulex - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
| | Acute LC50 6000000 µg/l Fresh water | Crustaceans - Gammarus pulex | 48 hours |
| | Acute LC50 7460000 µg/l Fresh water | Daphnia - Daphnia cucullata | 48 hours |
| | Acute LC50 7810000 µg/l Fresh water | Daphnia - Daphnia cucullata | 48 hours |
| | Acute LC50 10000 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 9218000 µg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 8800000 µg/l Fresh water | Daphnia - Daphnia pulex | 48 hours |
| | Acute LC50 8000 ppm Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute LC50 7280000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 8120000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 6210000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 5600 ppm Fresh water | Fish - Poecilia reticulata | 96 hours |
| | Chronic NOEC 0.5 ml/L Marine water | Algae - Karenia brevis | 96 hours |
| | Chronic NOEC 100 µl/L Marine water | Algae - Skeletonema costatum | 72 hours |
| | Chronic NOEC 100 µl/L Marine water | Algae - Skeletonema costatum | 96 hours |
| | Chronic NOEC 4.95 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Chronic NOEC 0.016 ml/L Fresh water | Crustaceans - Daphniidae | 21 days |

Section 12. Ecological information

| | | | |
|----------------------|-------------------------------------|--|----------|
| ethyl acetate | Chronic NOEC 0.1 ml/L Fresh water | Daphnia - Daphnia magna - Neonate | 21 days |
| | Chronic NOEC 5 µg/l Marine water | Fish - Gasterosteus aculeatus - Larvae | 42 days |
| | Acute EC50 2500000 µg/l Fresh water | Algae - Selenastrum sp. | 96 hours |
| | Acute LC50 750000 µg/l Fresh water | Crustaceans - Gammarus pulex | 48 hours |
| | Acute LC50 154000 µg/l Fresh water | Daphnia - Daphnia cucullata | 48 hours |
| | Acute LC50 212500 µg/l Fresh water | Fish - Heteropneustes fossilis | 96 hours |
| | Chronic NOEC 2400 µg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| xylene | Chronic NOEC 75.6 mg/l Fresh water | Fish - Pimephales promelas - Embryo | 32 days |
| | Acute EC50 90 mg/l Fresh water | Crustaceans - Cypris subglobosa | 48 hours |
| | Acute LC50 8.5 ppm Marine water | Crustaceans - Palaemonetes pugio - Adult | 48 hours |
| | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| | Acute LC50 16940 µg/l Fresh water | Fish - Carassius auratus | 96 hours |
| | Acute LC50 15700 µg/l Fresh water | Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |
| | Acute LC50 20870 µg/l Fresh water | Fish - Lepomis macrochirus | 96 hours |
| n-butyl acetate | Acute LC50 19000 µg/l Fresh water | Fish - Lepomis macrochirus | 96 hours |
| | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 32 mg/l Marine water | Crustaceans - Artemia salina | 48 hours |
| | Acute LC50 62000 µg/l Fresh water | Fish - Danio rerio | 96 hours |
| | Acute LC50 100000 µg/l Fresh water | Fish - Lepomis macrochirus | 96 hours |
| | Acute LC50 185000 µg/l Marine water | Fish - Menidia beryllina | 96 hours |
| | Acute LC50 18000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| methyl methacrylate | Acute LC50 130000 µg/l Fresh water | Fish - Pimephales promelas - Adult | 96 hours |
| n-butyl methacrylate | Chronic NOEC 2.6 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 21 days |
| maleic anhydride | Acute LC50 230 ppm Fresh water | Fish - Gambusia affinis - Adult | 96 hours |

Persistence and degradability

Not available.

Bioaccumulative potential

Section 12. Ecological information

| 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.

Section 14. Transport information

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

Additional information

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

Section 14. Transport 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
- 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
- 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

Canadian lists

- Canadian NPRI** : The following components are listed: propane; ethyl acetate; butane (all isomers); light aromatic solvent naphtha; xylene (all isomers); aluminum (fume or dust only); butyl acetate (all isomers)
- CEPA Toxic substances** : None of the components are listed.

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.

Section 15. Regulatory information

| | |
|---------------|--|
| Turkey | : Not determined. |
| United States | : All components are active or exempted. |
| Viet Nam | : Not determined. |

Section 16. Other information

History

| | |
|--------------------------------|--------------|
| Date of printing | : 12/23/2022 |
| Date of issue/Date of revision | : 10/19/2022 |
| Date of previous issue | : 9/16/2021 |
| Version | : 3 |

| | |
|----------------------|--|
| Key to abbreviations | : ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals HPR = Hazardous Products Regulations 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 |
|----------------------|--|

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 1A | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |

References : Not available.

☑ Indicates information that has changed from previously issued version.

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