SAFETY DATA SHEET



according to Workplace Safety and Health Regulations Singapore

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

Not available.

Supplier's details : WEICON GmbH & Co. KG

Königsberger Str. 255

48157 Münster

Germany

Phone: +49 251 93220 Fax: +49(0)251 / 9322 - 244 Internet: www.weicon.de

e-mail address of person responsible for this SDS

: msds@weicon.de

Emergency telephone

number

: EMERGENCY CONTACT – UK, UAE, South Africa (24h): Tel: ++44 1865 407333

(English)

TRANSPORT EMERGENCY CONTACT - UK, UAE, South Africa (24h): Tel: ++44

1865 407333 (English)

Section 2. Hazards identification

Classification of the substance or mixture

: AEROSOLS - Category 1

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

AQUATIC HAZARD (LONG-TERM) - Category 1

GHS label elements, including precautionary statements

Hazard pictograms :







Signal word : Danger

Hazard statements : H222, H229 - Extremely flammable aerosol. Pressurized container: may burst if

heated.

H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness.

H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention: P280 - 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.

P273 - Avoid release to the environment.
P261 - Avoid breathing dust or mist.
P264 - Wash thoroughly after handling.
P251 - Do not pierce or burn, even after use.

Section 2. Hazards identification

Response

P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. 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 + P412 - Protect from sunlight. 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.

Other hazards which do not : None known.

result in classification

Section 3. Composition/information on ingredients

: Mixture Substance/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 isomers mixture | <10 | 1330-20-7 |
| n-butyl acetate | ≤10 | 123-86-4 |
| Fatty acids, C14-18 and C16-18-unsatd., maleated | <1 | 85711-46-2 |
| methyl methacrylate [stable] | <1 | 80-62-6 |
| n-butyl methacrylate [stable] | <1 | 97-88-1 |

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

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

Chemical formula : Not applicable.

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 : Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur. Wash clothing before reuse.

Clean shoes thoroughly before reuse.

Section 4. First aid measures

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 : No known significant effects or critical hazards.

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 : No specific data. 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.

: No specific treatment. Specific treatments

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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

: None known.

media

media

Section 5. Fire-fighting measures

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. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

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). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Avoid release to the environment. 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.

Section 7. Handling and storage

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. 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 | Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 750 ppm 8 hours. PEL (long term): 1780 mg/m³ 8 hours. PEL (short term): 2380 mg/m³ 15 minutes. PEL (short term): 1000 ppm 15 minutes. |
| ethyl acetate | Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 400 ppm 8 hours. PEL (long term): 1440 mg/m³ 8 hours. |
| xylene isomers mixture | Workplace Safety and Health Act (Singapore, 2/2006). [Xylene] PEL (long term): 100 ppm 8 hours. PEL (long term): 434 mg/m³ 8 hours. PEL (short term): 651 mg/m³ 15 minutes. PEL (short term): 150 ppm 15 minutes. |
| n-butyl acetate | Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 150 ppm 8 hours. PEL (long term): 713 mg/m³ 8 hours. PEL (short term): 950 mg/m³ 15 minutes. PEL (short term): 200 ppm 15 minutes. |
| methyl methacrylate [stable] | Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 100 ppm 8 hours. PEL (long term): 410 mg/m³ 8 hours. |

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.

Section 8. Exposure controls/personal protection

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. 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

: Personal protective equipment for the body should be selected based on the task **Body protection**

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.

Based on the hazard and potential for exposure, select a respirator that meets the Respiratory protection

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. На : Not applicable. Melting point/freezing point : Not applicable. Boiling point, initial boiling : -44°C (-47.2°F)

point, and boiling range

Flash point : Closed cup: -97°C (-142.6°F)

: >200°C (>392°F) Fire point **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.

: Not available. Vapor pressure 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.

: Not available. Auto-ignition temperature **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

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

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.

SADT : Not available.

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 isomers mixture | 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 |

Section 11. Toxicological information

| | LD50 Dermal | Rabbit | >17600 mg/kg | - |
|-------------------------------|----------------------|--------|--------------|---------|
| | LD50 Oral | Rat | 10768 mg/kg | - |
| methyl methacrylate [stable] | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | 7872 mg/kg | - |
| n-butyl methacrylate [stable] | LC50 Inhalation Gas. | Rat | 4910 ppm | 4 hours |
| | LD50 Oral | Rat | 16 g/kg | - |

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 isomers mixture | 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 [stable] | Skin - Mild irritant | Rabbit | - | 500 uL | - |

Conclusion/Summary

Skin : Irritating to skin.

Eyes : Irritating to eyes.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

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 |
| | Category 3 | | Narcotic effects |
| n-butyl acetate | Category 3 | - | Narcotic effects |
| methyl methacrylate [stable] | Category 3 | - | Respiratory tract irritation |
| n-butyl methacrylate [stable] | Category 3 | - | Respiratory tract irritation |

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

| Name | Result |
|--|--------------------------------|
| Solvent naphtha (petroleum), light arom. | 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: No known significant effects or critical hazards.

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

watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness

Skin contact: No specific data.Ingestion: No specific data.

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

Short term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.
 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

Section 11. Toxicological information

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) |
|-------------------------------|------------------|-------------------|--------------------------------|----------------------------------|--|
| acetone | 5800 | N/A | N/A | N/A | N/A |
| ethyl acetate | 5620 | N/A | N/A | N/A | N/A |
| n-butyl acetate | 10768 | N/A | N/A | N/A | N/A |
| methyl methacrylate [stable] | 7872 | N/A | N/A | N/A | N/A |
| n-butyl methacrylate [stable] | 16000 | N/A | 4910 | N/A | N/A |

Acute toxicity estimates

| Route | ATE value |
|----------------|-----------|
| Not available. | |

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 |
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Section 12. Ecological information

| | 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 ul/L Marine water | Algae - Skeletonema costatum | 72 hours |
| | Chronic NOEC 100 ul/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 |
| | 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 |
| ethyl acetate | 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 |
| | Chronic NOEC 75.6 mg/l Fresh water | Fish - Pimephales promelas - Embryo | 32 days |
| xylene isomers mixture | 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 |
| | Acute LC50 19000 μg/l Fresh water | Fish - Lepomis macrochirus | 96 hours |
| | Acute LC50 13400 μg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| n-butyl acetate | 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 [stable] | Acute LC50 130000 μg/l Fresh water | Fish - Pimephales promelas - Adult | 96 hours |
| n-butyl methacrylate [stable] | Chronic NOEC 2.6 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 21 days |

Section 12. Ecological information

Persistence/degradability

Not available.

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|-------------------------------|--------|-------------|-----------|
| acetone | -0.23 | - | low |
| ethyl acetate | 0.68 | 30 | low |
| Solvent naphtha (petroleum), | - | 10 to 2500 | high |
| light arom. | | | _ |
| xylene isomers mixture | 3.12 | 8.1 to 25.9 | low |
| n-butyl acetate | 2.3 | - | low |
| methyl methacrylate [stable] | 1.38 | - | low |
| n-butyl methacrylate [stable] | 2.99 | - | low |

Mobility in soil

Soil/water partition coefficient (Koc)

: 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

| | UN | IMDG | IATA | ADR/RID |
|----------------------------|----------|----------|---------------------|----------|
| UN number | UN1950 | UN1950 | UN1950 | UN1950 |
| UN proper shipping name | AEROSOLS | AEROSOLS | Aerosols, flammable | AEROSOLS |
| Transport hazard class(es) | 2.1 | 2.1 | 2.1 | 2 |
| Packing group | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. |

Additional information

UN : **Special provisions** 63, 190, 277, 327, 344, 381

IMDG : <u>Emergency schedules</u> F-D, S-U

Special provisions 63, 190, 277, 327, 344, 381, 959

Section 14. Transport information

: 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

ADR/RID : Limited quantity 1 L

Special provisions 190, 327, 625, 344

Tunnel code (D)

ADR Classification Code: 5F

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 : Not available.

to IMO instruments

Section 15. Regulatory information

Singapore - hazardous chemicals under government control

None.

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

History

Date of printing : 5/14/2023 Date of issue/Date of : 5/4/2023

revision

Date of previous issue : No previous validation

Version : 3.02

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

Procedure used to derive the classification

| Classification | Justification |
|---|---|
| AEROSOLS - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | On basis of test data Calculation method Calculation method |
| AQUATIC HAZARD (LONG-TERM) - Category 1 | Calculation method |

References: Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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