

Aaron Chemistry GmbH

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 Version 5.1 Revision Date 10.10.2014 Print Date 14.08.2018 GENERIC EU MSDS – NO COUNTRY SPECIFIC DATA – NO OEL DATA

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

| Product identifiers | |
|---|--|
| Product name | : methyl-2-methyl-3-oxopropanoate |
| Product Number Brand REACH No. | 32387 Aaron Chemistry GmbH A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline. |
| CAS-No. | : 351673–59–7 |
| Relevant identified uses of the substance or mixture and uses advised against | |
| Identified uses | : Laboratory chemicals, Manufacture of substances |
| Details of the supplier of the safety data sheet | |
| Company | : Aaron Chemistry GmbH : Am Fischweiher 41-43 : D-82481 Mittenwald : Germany |
| Telephone: Fax: email: | : +49-8823-917521 : +49-8823-917523 : info@aaron-chemistry.de |
| | Product name Product Number Brand REACH No. CAS-No. Relevant identified uses of Identified uses Details of the supplier of the Company Telephone: Fax: |

1.4 Emergency telephone number :+49-8823-917521

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 Skin irritation (Category 2) Eye irritation (Category 2) Specific target organ toxicity – single exposure (Category 3)

Classification according to EU Directives 67/548/EEC or 1999/45/EC Irritating to eyes, respiratory system and skin

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008
Pictogram

Signal word

Danger

| Hazard statement(s) | |
|--|--|
| H315 H319 H335 | Causes skin irritatin Causes serious eye irritation May cause an allergic skin reaction. |
| Precautionary statement(s) P261P 305 + P351 + P338 | Avoid breathing dust/fume/gas/mist/vapurs/spray IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Supplemental Hazard | none |
| According to European Directiv R-hrases(| re 67/548/EEC as amended. |
| R36/37/38 | Irritating to eyes, respiratory system and skin |
| S-phrases(s) | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice |
| S373/ Statements | Wear suitable gloves and eye/face protection |
| Other hazards none | |

SECTION 3: Composition/information on ingredients

| 3.1 | Substances | | |
|-----|------------------|---|--|
| | Formula | : | C ₄ HBrCl ₂ N ₂ |
| | Molecular weight | : | 227,87 g/mol |
| | CAS-No. | : | 36082-50-5 |

Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component | | Classification | Concentration |
|---|-------------|---|---------------|
| 5-Bromo-2,4-dichlo | opyrimidine | | |
| CAS-No. | 36082-50-5 | Acute Tox. 3; Skin Corr. 1B; Skin Sens. 1; H301 + H311 + H331, H314, H317 | <= 100 % |
| Hazardous ingredients according to Directive 1999/45/EC | | | |

| Component | | Classification | Concentration |
|---------------------|-------------|--------------------------|---------------|
| 5-Bromo-2,4-dichloi | opyrimidine | | |
| CAS-No. | 36082-50-5 | T, R23/24/25 - R34 - R43 | <= 100 % |
| | | | |

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

2.3

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas, Hydrogen bromide gas

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| a) | Appearance | Form: solid Colour: colourless |
|----|--|--|
| b) | Odour | No data available |
| c) | Odour Threshold | No data available |
| d) | рН | No data available |
| e) | Melting point/freezing point | Melting point/range: 29 - 30 °C - lit. |
| f) | Initial boiling point and boiling range | 128 °C at 20 hPa - lit. |
| g) | Flash point | 113 °C - closed cup |
| h) | Evaporation rate | No data available |
| i) | Flammability (solid, gas) | No data available |
| j) | Upper/lower flammability or explosive limits | No data available |

| k) | Vapour pressure | No data available |
|---|--|----------------------|
| I) | Vapour density | No data available |
| m) | Relative density | 1,781 g/cm3 at 25 °C |
| n) | Water solubility | No data available |
| o) | Partition coefficient: n- octanol/water | No data available |
| p) | Auto-ignition temperature | No data available |
| q) | Decomposition temperature | No data available |
| r) | Viscosity | No data available |
| s) | Explosive properties | No data available |
| t) | Oxidizing properties | No data available |
| Other safety information No data available | | |
| | | |

SECTION 10: Stability and reactivity

10.1 Reactivity No data available

9.2

- **10.2 Chemical stability** Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions No data available
- **10.4 Conditions to avoid** No data available
- **10.5** Incompatible materials Strong oxidizing agentsStrong oxidizing agents
- **10.6 Hazardous decomposition products** Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity LD50 Oral - Rat - 136 mg/kg

Skin corrosion/irritation No data available

Serious eye damage/eye irritation No data available

Respiratory or skin sensitisation No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure No data available

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available

Additional Information RTECS: Not available

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

SECTION 12: Ecological information

- 12.1 Toxicity No data available
- 12.2 Persistence and degradability No data available
- 12.3 Bioaccumulative potential No data available
- 12.4 Mobility in soil No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

| SEC1 | TION 14: Tra | nsport information | | | |
|------|--|------------------------------------|---------------|--|--|
| 14.1 | UN numbe ADR/RID: 2 | | IMDG: 2923 | IATA: 2923 | |
| 14.2 | UN proper ADR/RID: IMDG: IATA: | CORROSIVE SOLIE | | omo-2,4-dichloropyrimidine) omo-2,4-dichloropyrimidine) ichloropyrimidine) | |
| 14.3 | Transport ADR/RID: 8 | hazard class(es) 3 (6.1) | IMDG: 8 (6.1) | IATA: 8 (6.1) | |

| 14.4 | Packaging group ADR/RID: II | IMDG: II | IATA: II |
|------|---|---------------------------|----------|
| 14.5 | Environmental hazards ADR/RID: no | IMDG Marine pollutant: no | IATA: no |
| 14.6 | Special precautions for user No data available | | |

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

No data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

| Acute Tox. H301 H301 + H311 + | Acute toxicity Toxic if swallowed. Toxic if swallowed, in contact with skin or if inhaled |
|-------------------------------------|---|
| H331 | |
| H311 | Toxic in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H331 | Toxic if inhaled. |

Full text of R-phrases referred to under sections 2 and 3

| Toxic |
|---|
| Toxic by inhalation, in contact with skin and if swallowed. |
| Causes burns. |
| May cause sensitisation by skin contact. |
| |

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Aaron Chemistry Gmbh shall not be held liable for any damage resulting from handling or from contact with the above product.