

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice



## Methacrylic acid methyl ester ≥99 %, extra pure

article number: **4233**  
Version: **GHS 4.0 en**  
Replaces version of: 2022-08-15  
Version: (GHS 3)

date of compilation: 2016-06-14  
Revision: 2024-03-02

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

### 1.1 Product identifier

Identification of the substance **Methacrylic acid methyl ester ≥99 %, extra pure**  
Article number 4233  
CAS number 80-62-6

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

Relevant identified uses: Laboratory chemical  
Laboratory and analytical use  
Formulation [mixing] of preparations and/or re-packaging (excluding alloys)  
Industrial uses  
Professional uses

Uses advised against: Do not use for private purposes (household).  
Food, drink and animal feedingstuffs.

### 1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co. KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:** +49 (0) 721 - 56 06 0  
**Telefax:** +49 (0) 721 - 56 06 149  
**e-mail:** [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)  
**Website:** [www.carlroth.de](http://www.carlroth.de)

Competent person responsible for the safety data sheet: Department Health, Safety and Environment

**e-mail (competent person):** [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

### 1.4 Emergency telephone number

| Name   | Street          | Postal code/city     | Telephone | Website |
|--|-----------------|----------------------|-----------|---------|
| NSW Poisons Information Centre<br>Childrens Hospital | Hawkesbury Road | 2145 West-meade, NSW | 131126    |         |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification acc. to GHS

| Section | Hazard class              | Cat-egory | Hazard class and category | Hazard statement |
|---------|---------------------------|-----------|---------------------------|------------------|
| 2.6     | Flammable liquid          | 2         | Flam. Liq. 2              | H225             |
| 3.2     | Skin corrosion/irritation | 2         | Skin Irrit. 2             | H315             |
| 3.4S    | Skin sensitisation        | 1         | Skin Sens. 1              | H317             |

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| Section | Hazard class  | Cat-egory | Hazard class and category | Hazard statement |
|---------|---|-----------|---------------------------|------------------|
| 3.8R    | Specific target organ toxicity - single exposure (respiratory tract irritation) | 3         | STOT SE 3                 | H335             |

For full text of abbreviations: see SECTION 16

### The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

## 2.2 Label elements

### Labelling

#### Signal word

**Danger**

#### Pictograms

GHS02, GHS07



#### Hazard statements

H225 Highly flammable liquid and vapour  
H315 Causes skin irritation  
H317 May cause an allergic skin reaction  
H335 May cause respiratory irritation

#### Precautionary statements

##### Precautionary statements - prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
P280 Wear protective gloves

##### Precautionary statements - response

P302+P352 IF ON SKIN: Wash with plenty of soap and water  
P370+P378 In case of fire: Use sand, carbon dioxide or powder extinguisher for extinction

##### Precautionary statements - storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed  
P403+P235 Store in a well-ventilated place. Keep cool

## 2.3 Other hazards

### Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

### Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                   |  |
|-------------------|--|
| Name of substance | Methacrylic acid methyl ester                |
| Molecular formula | C <sub>5</sub> H <sub>8</sub> O <sub>2</sub> |
| Molar mass        | 100.1 g/mol                                  |
| CAS No            | 80-62-6                                      |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off contaminated clothing.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower. After contact with skin, wash immediately with plenty of water. In case of skin reactions, consult a physician. In case of skin irritation, consult a physician.

#### Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

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

Irritation, Allergic reactions, Headache, Dizziness, Narcosis,  
After eye contact: Causes tears, Conjunctival redness of the eyes,  
Following skin contact: Localised redness, oedema, pruritis and/or pain, Following inhalation: Cough, Dyspnoea, Blood pressure drop

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

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media



#### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings!  
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

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### Unsuitable extinguishing media

water jet

### 5.2 Special hazards arising from the substance or mixture

Combustible. In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours may form explosive mixtures with air.

### Hazardous combustion products

In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures



#### For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

### 6.3 Methods and material for containment and cleaning up

#### Advice on how to contain a spill

Covering of drains.

#### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provision of sufficient ventilation. Use extractor hood (laboratory).

#### Measures to prevent fire as well as aerosol and dust generation



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge. Due to danger of explosion, prevent leakage

of vapours into cellars, flues and ditches.

#### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. When using do not smoke.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

Ground/bond container and receiving equipment.

#### Ventilation requirements

Use local and general ventilation.

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

| Country | Name of agent  | CAS No  | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Ceiling-C [ppm] | Ceiling-C [mg/m <sup>3</sup> ] | Notation | Source |
|---------|--|---------|------------|-----------|--------------------------|------------|---------------------------|-----------------|--------------------------------|----------|--------|
| AU      | methyl methacrylate (methacrylic acid, methyl ester) | 80-62-6 | WES        | 50        | 208                      | 100        | 416                       |                 |                                |          | WES    |

#### Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur

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|      |  |
|------|--|
| STEL | Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)                   |
| TWA  | Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified) |

### Human health values

| Relevant DNELs and other threshold levels |                         |                                    |                   |                            |
|---|-------------------------|------------------------------------|-------------------|----------------------------|
| Endpoint                                  | Threshold level         | Protection goal, route of exposure | Used in           | Exposure time              |
| DNEL                                      | 348.4 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| DNEL                                      | 208 mg/m <sup>3</sup>   | human, inhalatory                  | worker (industry) | chronic - local effects    |
| DNEL                                      | 416 mg/m <sup>3</sup>   | human, inhalatory                  | worker (industry) | acute - local effects      |
| DNEL                                      | 13.67 mg/kg bw/day      | human, dermal                      | worker (industry) | chronic - systemic effects |

### Environmental values

| Relevant PNECs and other threshold levels |                 |                       |                              |                              |
|---|-----------------|-----------------------|------------------------------|------------------------------|
| End-point                                 | Threshold level | Organism              | Environmental compartment    | Exposure time                |
| PNEC                                      | 0.94 mg/l       | aquatic organisms     | water                        | intermittent release         |
| PNEC                                      | 0.94 mg/l       | aquatic organisms     | freshwater                   | short-term (single instance) |
| PNEC                                      | 0.094 mg/l      | aquatic organisms     | marine water                 | short-term (single instance) |
| PNEC                                      | 10 mg/l         | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| PNEC                                      | 10.2 mg/kg      | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| PNEC                                      | 0.102 mg/kg     | aquatic organisms     | marine sediment              | short-term (single instance) |
| PNEC                                      | 1.48 mg/kg      | terrestrial organisms | soil                         | short-term (single instance) |

## 8.2 Exposure controls

### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggle with side protection.

#### Skin protection



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### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 °C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

### • type of material

Butyl caoutchouc (butyl rubber)

### • material thickness

0,5 mm

### • breakthrough times of the glove material

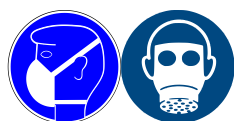
>60 minutes (permeation: level 3)

### • other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Flame-retardant protective clothing.

### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C, colour code: Brown).

### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|  |  |
|--|--|
| Physical state   | liquid   |
| Colour   | colourless - clear                               |
| Odour  | pungent - greenish yellow                        |
| Odour threshold  | 0.05 – 0.34 ppm                                  |
| Melting point/freezing point                             | -48 °C at 1,013 hPa (ECHA)                       |
| Boiling point or initial boiling point and boiling range | 100.4 °C at 1,013 hPa (ECHA)                     |
| Flammability   | flammable liquid in accordance with GHS criteria |
| Lower and upper explosion limit                          | 2.1 vol% (LEL) - 12.5 vol% (UEL)                 |
| Flash point  | 10 °C at 1,013 hPa (ECHA)                        |
| Auto-ignition temperature                                | 435 °C at 1,013 hPa (ECHA)                       |
| Decomposition temperature                                | not relevant                                     |

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|  |   |
|--|---|
| pH (value)   | not determined                          |
| Kinematic viscosity                                | not determined                          |
| Dynamic viscosity                                  | 0.53 mPa s at 20 °C                     |
| <u>Solubility(ies)</u>                             |   |
| Water solubility                                   | 15.3 g/l at 20 °C (ECHA)                |
| <u>Partition coefficient</u>                       |   |
| Partition coefficient n-octanol/water (log value): | 1.38 (pH value: ~7, 20 °C) (ECHA)       |
| Soil organic carbon/water (log KOC)                | 0.94 – 1.858 (ECHA)                     |
| Vapour pressure                                    | 30 hPa at 16.67 °C                      |
| <u>Density and/or relative density</u>             |   |
| Density  | 0.944 g/cm <sup>3</sup> at 20 °C (ECHA) |
| Relative vapour density                            | 3.5 at 20 °C (air = 1)                  |
| Particle characteristics                           | not relevant (liquid)                   |
| <u>Other safety parameters</u>                     |   |
| Oxidising properties                               | none                                    |

### 9.2 Other information

|   |                                     |
|---|-------------------------------------|
| Information with regard to physical hazard classes: | There is no additional information. |
| Other safety characteristics:                       | There is no additional information. |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

It's a reactive substance. Risk of ignition. Vapours may form explosive mixtures with air.

#### If heated

Risk of ignition. Exothermic polymerisation.

#### If exposed to light

Exothermic polymerisation.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

**Violent reaction with:** strong oxidiser, Amines, Ammonia (NH<sub>3</sub>), Persulphate, Peroxides, Aldehydes, => Explosive properties



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### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Direct light irradiation.

### 10.5 Incompatible materials

There is no additional information.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Classification acc. to GHS

##### Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4. May be harmful if inhaled.

| Acute toxicity     |          |              |         |        |        |
|--------------------|----------|--------------|---------|--------|--------|
| Exposure route     | Endpoint | Value        | Species | Method | Source |
| oral               | LD50     | 7,872 mg/kg  | rat     |        | TOXNET |
| inhalation: vapour | LC50     | 29.8 mg/l/4h | rat     |        | ECHA   |
| dermal             | LD50     | >5,000 mg/kg | rabbit  |        | ECHA   |

##### Skin corrosion/irritation

Causes skin irritation.

##### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

##### Respiratory or skin sensitisation

May cause an allergic skin reaction.

##### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

##### Carcinogenicity

Shall not be classified as carcinogenic.

##### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

##### Specific target organ toxicity - single exposure

May cause respiratory irritation.

##### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

##### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

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**Symptoms related to the physical, chemical and toxicological characteristics**

• **If swallowed**

gastrointestinal complaints, vomiting, aspiration hazard, Liver and kidney damage

• **If in eyes**

causes slight to moderate irritation

• **If inhaled**

Irritation to respiratory tract, cough, Dyspnoea, headache, Dizziness, narcosis

• **If on skin**

causes skin irritation, May produce an allergic reaction, pruritis, localised redness

• **Other information**

Other adverse effects: Central nervous system

**11.2 Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Harmful to aquatic life.

| <b>Aquatic toxicity (acute)</b> |              |                       |               |                      |
|---------------------------------|--------------|-----------------------|---------------|----------------------|
| <b>Endpoint</b>                 | <b>Value</b> | <b>Species</b>        | <b>Source</b> | <b>Exposure time</b> |
| LC50                            | >79 mg/l     | fish                  | ECHA          | 96 h                 |
| EC50                            | 69 mg/l      | aquatic invertebrates | ECHA          | 48 h                 |
| ErC50                           | >110 mg/l    | algae                 | ECHA          | 72 h                 |

| <b>Aquatic toxicity (chronic)</b> |              |                       |               |                      |
|-----------------------------------|--------------|-----------------------|---------------|----------------------|
| <b>Endpoint</b>                   | <b>Value</b> | <b>Species</b>        | <b>Source</b> | <b>Exposure time</b> |
| LC50                              | 33.7 mg/l    | fish                  | ECHA          | 35 d                 |
| EC50                              | 49 mg/l      | aquatic invertebrates | ECHA          | 21 d                 |

**12.2 Persistence and degradability**

Theoretical Oxygen Demand: 1.918 mg/mg

Theoretical Carbon Dioxide: 2.198 mg/mg

**Biodegradation**

The substance is readily biodegradable.

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| Process of degradability |                  |       |
|--------------------------|------------------|-------|
| Process                  | Degradation rate | Time  |
| biotic/abiotic           | >94 %            | 148 d |
| oxygen depletion         | 94 %             | 14 d  |

### 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

|                           |                                   |
|---------------------------|-----------------------------------|
| n-octanol/water (log KOW) | 1.38 (pH value: ~7, 20 °C) (ECHA) |
|---------------------------|-----------------------------------|

### 12.4 Mobility in soil

|  |   |
|--|---|
| Henry's law constant                                 | 14.7 Pa m <sup>3</sup> /mol at 25 °C (ECHA) |
| The Organic Carbon normalised adsorption coefficient | 0.94 – 1.858 (ECHA)                         |

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains.

#### Waste treatment of containers/packagings

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

#### Relevant provisions relating to waste(Basel Convention)

#### Properties of waste which render it hazardous

**H3** Flammable liquids  
**H11** Toxic (Delayed or chronic)

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

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### SECTION 14: Transport information

#### 14.1 UN number

|                |         |
|----------------|---------|
| <b>UN RTDG</b> | UN 1247 |
| IMDG-Code      | UN 1247 |
| ICAO-TI        | UN 1247 |

#### 14.2 UN proper shipping name

|                |   |
|----------------|---|
| <b>UN RTDG</b> | METHYL METHACRYLATE MONOMER, STABILIZED |
| IMDG-Code      | METHYL METHACRYLATE MONOMER, STABILIZED |
| ICAO-TI        | Methyl methacrylate monomer, stabilized |

#### 14.3 Transport hazard class(es)

|                |   |
|----------------|---|
| <b>UN RTDG</b> | 3 |
| IMDG-Code      | 3 |
| ICAO-TI        | 3 |

#### 14.4 Packing group

|                |    |
|----------------|----|
| <b>UN RTDG</b> | II |
| IMDG-Code      | II |
| ICAO-TI        | II |

#### 14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

#### 14.6 Special precautions for user


There is no additional information.

#### 14.7 Transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

#### 14.8 Information for each of the UN Model Regulations

##### Transport information National regulations Additional information (UN RTDG)

|   |                |
|---|----------------|
| <b>UN number</b>  | 1247           |
| <b>Class</b>  | 3              |
| <b>Packing group</b>  | II             |
| <b>Danger label(s)</b>  | 3              |
|  |                |
| <b>Special provisions (SP)</b>  | 386<br>UN RTDG |
| <b>Excepted quantities (EQ)</b>   | E2<br>UN RTDG  |
| <b>Limited quantities (LQ)</b>  | 1 L<br>UN RTDG |



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|   |   |
|---|---|
| <b>Emergency Action Code</b>  | 3YE   |
| <b>International Maritime Dangerous Goods Code (IMDG) - Additional information</b>        |   |
| Proper shipping name  | METHYL METHACRYLATE MONOMER, STABILIZED                           |
| Particulars in the shipper's declaration  | UN1247, METHYL METHACRYLATE MONOMER, STABILIZED, 3, II, 10°C c.c. |
| Marine pollutant  | -   |
| Danger label(s)   | 3   |
|          |   |
| Special provisions (SP)   | 386   |
| Excepted quantities (EQ)  | E2  |
| Limited quantities (LQ)   | 1 L   |
| EmS   | F-E, S-D  |
| Stowage category  | C   |
| <b>International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information</b> |   |
| Proper shipping name  | Methyl methacrylate monomer, stabilized                           |
| Particulars in the shipper's declaration  | UN1247, Methyl methacrylate monomer, stabilized, 3, II            |
| Danger label(s)   | 3   |
|        |   |
| Special provisions (SP)   | A209  |
| Excepted quantities (EQ)  | E2  |
| Limited quantities (LQ)   | 1 L   |

## SECTION 15: Regulatory information

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

There is no additional information.

#### National regulations(Australia)

##### Australian Inventory of Chemical Substances(AICS)

Substance is listed.

#### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

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### National inventories

| Country | Inventory  | Status                       |
|---------|------------|------------------------------|
| AU      | AIIC       | substance is listed          |
| CA      | DSL        | substance is listed          |
| CN      | IECSC      | substance is listed          |
| EU      | ECSI       | substance is listed          |
| EU      | REACH Reg. | substance is listed          |
| JP      | CSCL-ENCS  | substance is listed          |
| KR      | KECI       | substance is listed          |
| MX      | INSQ       | substance is listed          |
| NZ      | NZIoC      | substance is listed          |
| PH      | PICCS      | substance is listed          |
| TR      | CICR       | substance is listed          |
| TW      | TCSI       | substance is listed          |
| US      | TSCA       | substance is listed (ACTIVE) |
| VN      | NCI        | substance is listed          |

#### Legend

|            |   |
|------------|---|
| AIIC       | Australian Inventory of Industrial Chemicals                            |
| CICR       | Chemical Inventory and Control Regulation                               |
| CSCL-ENCS  | List of Existing and New Chemical Substances (CSCL-ENCS)                |
| DSL        | Domestic Substances List (DSL)  |
| ECSI       | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC      | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ       | National Inventory of Chemical Substances                               |
| KECI       | Korea Existing Chemicals Inventory                                      |
| NCI        | National Chemical Inventory   |
| NZIoC      | New Zealand Inventory of Chemicals                                      |
| PICCS      | Philippine Inventory of Chemicals and Chemical Substances (PICCS)       |
| REACH Reg. | REACH registered substances   |
| TCSI       | Taiwan Chemical Substance Inventory                                     |
| TSCA       | Toxic Substance Control Act   |

## 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value) | Actual entry (text/value)  | Safety-relevant |
|---------|---------------------------|--|-----------------|
| 2.3     |                           | Endocrine disrupting properties:<br>Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%. | yes             |
| 14.8    |                           | Emergency Action Code:<br>3YE  | yes             |
| 15.1    |                           | National inventories:<br>change in the listing (table)   | yes             |

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## Methacrylic acid methyl ester $\geq 99\%$ , extra pure

article number: 4233

### Abbreviations and acronyms

| Abbr.     | Descriptions of used abbreviations   |
|-----------|--|
| CAS       | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)   |
| Ceiling-C | Ceiling value  |
| DGR       | Dangerous Goods Regulations (see IATA/DGR)   |
| DNEL      | Derived No-Effect Level  |
| EC50      | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval |
| ED        | Endocrine disruptor  |
| EINECS    | European Inventory of Existing Commercial Chemical Substances  |
| ELINCS    | European List of Notified Chemical Substances  |
| EmS       | Emergency Schedule   |
| ErC50     | $\equiv$ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control    |
| GHS       | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations  |
| IATA      | International Air Transport Association  |
| IATA/DGR  | Dangerous Goods Regulations (DGR) for the air transport (IATA)   |
| ICAO      | International Civil Aviation Organization  |
| ICAO-TI   | Technical instructions for the safe transport of dangerous goods by air  |
| IMDG      | International Maritime Dangerous Goods Code  |
| IMDG-Code | International Maritime Dangerous Goods Code  |
| LC50      | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval                                |
| LD50      | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval   |
| LEL       | Lower explosion limit (LEL)  |
| NLP       | No-Longer Polymer  |
| PBT       | Persistent, Bioaccumulative and Toxic  |
| PNEC      | Predicted No-Effect Concentration  |
| ppm       | Parts per million  |
| STEL      | Short-term exposure limit  |
| TWA       | Time-weighted average  |
| UEL       | Upper explosion limit (UEL)  |
| UN RTDG   | UN Recommendations on the Transport of Dangerous Good  |
| vPvB      | Very Persistent and very Bioaccumulative   |
| WES       | Safe Work Australia: Workplace exposure standards for airborne contaminants  |

### Key literature references and sources for data

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Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### List of relevant phrases (code and full text as stated in section 2 and 3)

| Code | Text                                 |
|------|--------------------------------------|
| H225 | Highly flammable liquid and vapour.  |
| H315 | Causes skin irritation.              |
| H317 | May cause an allergic skin reaction. |
| H335 | May cause respiratory irritation.    |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.