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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Malonic acid, GR, 99%+ Product Code: M 1397 CAS No : 141-82-2

1.2. Relevant identified uses of the substance or mixture and uses advised against Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet
Company identification
OTTO CHEMIE PVT LTD
101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate,
Chinchpada, Vasai East, Waliv, Maharashtra 401208.
Email info@ottokemi.com

1.4. Emergency telephone number Phone no. : + 91 22 2207 0099 (9:00am - 6:00 pm).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 Serious eye damage (Category 1), H318 For the full text of the H-Statements mentioned in this Section, see Section 16. 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Hazard statement(s) H318 Precautionary statement(s) P280 P305 + P351 + P338 Causes serious eye damage. Wear eye protection/ face pro-IF IN EYES: Rinse cautiously Remove contact lenses. if pre-

Wear eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. none

Supplemental Hazard Statements

2.3 Other hazards

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.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

| 3.1 Substances | |
|------------------|---------------------|
| Synonyms | : Propanedioic acid |
| Formula | : C3H4O4 |
| Molecular weight | : 104,06 g/mol |
| CAS-No. | : 141-82-2 |
| EC-No. | : 205-503-0 |
| | |

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| Component | Classification | Concentration |
|--------------------------------------|------------------|---------------|
| Malonic acid | | |
| CAS-No. 141-82-2 EC-No. 205-503-0 | Eye Dam. 1; H318 | <= 100 % |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures General advice Show this material safety data sheet to the doctor in attendance. If inhaled After inhalation: fresh air. In case of skin contact In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower In case of eye contact After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses. If swallowed After swallowing: immediately make victim drink water (two glasses at most). 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.Water Foam Carbon dioxide (CO2) Dry powder Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given. For this substance/mixture no limitations of extinguishing agents are given. 5.2 Special hazards arising from the substance or mixture Carbon oxides Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire. 5.3 Advice for firefighters In the event of fire, wear self-contained breathing apparatus. 5.4 Further information Prevent fire extinguishing water from contaminating surface water or the ground water system. **SECTION 6: Accidental release measures** 6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions

(see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid

generation of dusts.

6.4 Reference to other sections

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For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities Storage conditions Tightly closed. Dry. Storage class Storage class (TRGS 510): 11: Combustible Solids 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 Ingredients with workplace control parameters 8.2 Exposure controls Personal protective equipment Eye/face protection Use equipment for eye protection tested and approved under appropriate

government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber Minimum layer thickness: 0,11 mm

Break through time: 480 min Material tested:KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min Material tested:KCL 741 Dermatril® L

Body Protection

protective clothing

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical state b) Color c) Odor d) Melting point/freezing point e) Initial boiling point and boiling range (decomposition f) Flammability (solid, gas) g) Upper/lower flammability or explosive limits h) Flash point i) Autoignition temperature j) Decomposition temperature k) pH I) Viscosity

m) Water solubility n) Partition coefficient: n-octanol/water o) Vapor pressure p) Density Relative density q) Relative vapor density r) Particle characteristics s) Explosive properties t) Oxidizing properties 9.2 Other safety information No data available

SECTION 10: Stability and reactivity

10.1 Reactivity Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed. 10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature). 10.3 Possibility of hazardous reactions Violent reactions possible with: alkalines Strong oxidizing agents Aluminum Iron 10.4 Conditions to avoid Strong heating. 10.5 Incompatible materials Bases, Oxidizing agents, Reducing agents 10.6 Hazardous decomposition products In the event of fire: see section 5

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powder white odorless

Melting point/range: 132 - 135 $^\circ\text{C}$ - dec. 215 $^\circ\text{C}$ at 18,66 hPa

No data available

No data available

157 °C - c.c. No data available

> 140 °C

No data available Viscosity, kinematic: No data available Viscosity, dynamic: No data available 766 g/l at 20 °C - Regulation (EC) No. 440/2008, Annex, A.6 log Pow: -0,81 - Bioaccumulation is not expected., (Lit.)

0,002 hPa at 25 °C 1,6 g/cm3 1,03 at 20 °C - Regulation (EC) No. 440/2008, Annex, A.3

No data available

No data available none

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SECTION 11: Toxicological information

11.1 Information on toxicological effects Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals: Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L. Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant). Special Remarks on Toxicity to Animals: Not available. Special Remarks on Chronic Effects on Humans: Not available. Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12: Ecological information

| 12.1 Toxicity | | | | |
|---|--------------------------------|----------|--|--|
| Toxicity to fish flow-through test LC50 - Oryzias latipes - | > 95,4 mg/l - 96 h | | | |
| (OECD Test Guideline 203) | | | | |
| Toxicity to daphnia | | | | |
| and other aquatic | | | | |
| invertebrates | | 6 | | |
| static test EC50 - Daphnia magna (Water flea) - > 100 m | g/l - 48 h | | | |
| (OECD Test Guideline 202) | | | | |
| Toxicity to algae static test ErC50 - SELENASTRUM - > (OECD Test Guideline 201) | 998 mg/l - 72 h | | | |
| 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 v | very bioaccumulative (vPvB) at | | | |
| levels of 0.1% or higher. | | | | |
| 12.6 Endocrine disrupting properties | | | | |
| Product: | | | | |
| Assessment : The substance/mixture does not co considered to have endocrine disrup | | | | |
| according to REACH Article 57(f) or Commission | | | | |
| Delegated regulation (EU) 2017/2100 or Commission | | | | |
| Regulation (EU) 2018/605 at levels of 0.1% or higher. | | | | |
| 12.7 Other adverse effects | , or other might an | | | |
| No data available | | | | |
| | | | | |
| SECTION 13: Disposal considerations | | | | |
| 13.1 Waste treatment methods | | | | |
| No data available | | | | |
| | | | | |
| SECTION 14: Transport information | | | | |
| 14.1 UN number | | | | |
| ADR/RID: - | IMDG: - | IATA: - | | |
| 14.2 UN proper shipping name | | | | |
| ADR/RID Not dangerous goods | | | | |
| IMDG : Not dangerous goods | | | | |
| IATA : Not dangerous goods | | | | |
| 14.3 Transport hazard class(es) | | | | |
| ADR/RID: - | IMDG: - | IATA: - | | |
| 14.4 Packaging group | | | | |
| ADR/RID: - | IMDG: - | IATA: - | | |
| 14.5 Environmental hazards | | | | |
| ADR/RID: no | IMDG Marine pollutant: no | IATA: no | | |
| 14.6 Special precautions for user | | | | |

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No data available Further information Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
Other regulations
Take note of Dir 94/33/EC on the protection of young people at work.
15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.



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