

Safety Data Sheet acc. to OSHA HCS

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1 Identification

- · Product identifier
- · Trade name: MOPS hemisodium salt
- · Article number: A4517
- · CAS Number:
- 117961-20-3
- Application of the substance / the mixture Laboratory chemical
- Details of the supplier of the safety data sheet
 Manufacturer/Supplier: AppliChem GmbH
- Ottoweg 4 D-64291 Darmstadt

Tel.: +49 (0)6151 93570 Fax.: +49 (0)6151 935711 msds@applichem.com

- · Information department: Dept. Compliance
- · Emergency telephone number: +49(0)6151 93570 (Inside normal business hours)

2 Hazard(s) identification

• Classification of the substance or mixture The substance is not classified, according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Classification system:
- NFPA ratings (scale 0 4)

0 0Health = 0 Fire = 0 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



· Other hazards

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Substances

· CAS No. Description

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4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:

Wash off with plenty of water. If skin irritation continues, consult a doctor.

- After eye contact:
 Rinse opened eye for several minutes under running water.
 Seek medical treatment.
- After swallowing: Rinse out mouth. If symptoms persist consult doctor.
- · Information for doctor:
- Most important symptoms and effects, both acute and delayed
- No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

 Extinguishing media
 Suitable extinguishing agents: Water, CO2, foam, powder. Use fire fighting measures that suit the environment. In adaption to materials stored in the immediate neighbourhood.
 Special hazards arising from the substance or mixture

Nitrogen oxides (NOx) CO, CO2 (SO2, SO3) Non-combustible.

Ambient fire may liberate hazardous vapeurs.

- Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.
- Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
 Avoid formation of dust.
 Do not inhale dust.
 Ensure adequate ventilation
 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up: Pick up mechanically. Avoid generation of dusts. Clean up affected area.
- Reference to other sections
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.
- Protective Action Criteria for Chemicals
- PAC-1: Substance is not listed.
- · PAC-2: Substance is not listed.

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• PAC-3: Substance is not listed.

7 Handling and storage

- · Handling:
- · Precautions for safe handling Provide suction extractors if dust is formed.
- · Information about protection against explosions and fires: The product is not flammable.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep container sealed.
- Recommended storage temperature: +15 +25°C
- · Storage class: 13
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures: Change contaminated clothing.
- · Breathing equipment:
- Filter P1

Required when dusts are generated.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- Penetration time of glove material
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

 For the permanent contact gloves made of the following materials are suitable:
- For the permanent contact gloves made of the following materials are suitable: Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.11 mm

Value for the permeation: Level \geq 480 min

- As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.11 mm
- Value for the permeation: Level \geq 480 min
- Eve protection: Safety glasses
- Body protection: Salety g
- Protective work clothing

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazourdous substances handled.

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| 9 Physical and chemical properties | | | |
|---|---|--|--|
| Information on basic physical and chemical properties | | | |
| · General Information | | | |
| · Appearance: | | | |
| Form: | Powder | | |
| Color: · Odor: | White Characteristic | | |
| · Odor threshold: | Not determined. | | |
| · pH-value: | Not applicable. | | |
| · Change in condition | | | |
| Melting point/Melting range: | Undetermined. | | |
| Boiling point/Boiling range: | Undetermined. | | |
| · Flash point: | Not applicable. | | |
| Flammability (solid, gaseous): | Product is not flammable. | | |
| · Decomposition temperature: | Not determined. | | |
| · Auto igniting: | Not determined. | | |
| · Danger of explosion: | Product does not present an explosion hazard. | | |
| · Explosion limits: | | | |
| Lower: | Not determined. | | |
| Upper: | Not determined. | | |
| · Vapor pressure: | Not applicable. | | |
| · Density: | Not determined. | | |
| · Relative density | Not determined. | | |
| Vapor density | Not applicable. | | |
| · Evaporation rate | Not applicable. | | |
| · Solubility in / Miscibility with | Soluble. | | |
| Water: | | | |
| · Partition coefficient (n-octanol/water): Not determined. | | | |
| · Viscosity: | | | |
| Dynamic: | Not applicable. | | |
| Kinematic: · Other information | Not applicable. No further relevant information available. | | |
| | | | |

10 Stability and reactivity

· Reactivity No dangerous reactions known.

· Chemical stability

• Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

· Possibility of hazardous reactions No dangerous reactions known.

· Conditions to avoid No further relevant information available.

· Incompatible materials: No dangerous reactions known.

· Hazardous decomposition products: In the event of fire: See chapter 5

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11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:
- Quantitative data on the toxicological effect of this product are not available.
- Additional toxicological information: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us. The substance is not subject to classification.
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- Toxicity
- Aquatic toxicity: Quantitative data on the ecological effect of the product are not available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water Do not allow to enter waters, waste water, or soil.
- Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Chemicals must be disposed of in compliance with the respective national regulations.

· Uncleaned packagings:

· Recommendation:

Disposal must be made according to official regulations.

- Packagings that cannot be cleansed are to be disposed of in the same manner as the product.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

| 4 Transport information | | |
|--|------|----------------|
| · UN-Number · DOT, ADR, ADN, IMDG, IATA | Void | |
| · UN proper shipping name · DOT, ADR, ADN, IMDG, IATA | Void | |
| · Transport hazard class(es) | | |
| [·] DOT, ADR, ADN, IMDG, IATA [·] Class | Void | |
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| Packing group DOT, ADR, IMDG, IATA | Void | |
| · Environmental hazards: | Not applicable. | |
| · Special precautions for user | Not applicable. | |
| Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. | | |
| · UN "Model Regulation": | Void | |
| | | |

15 Regulatory information

 \cdot Safety, health and environmental regulations/legislation specific for the substance or mixture \cdot Sara

· Section 355 (extremely hazardous substances): Substance is not listed.

- · Section 313 (Specific toxic chemical listings): Substance is not listed.
- · TSCA (Toxic Substances Control Act): Substance is not listed.

· TSCA new (21st Century Act) (Substances not listed)

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· Proposition 65

- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Cancerogenity categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Dept. Compliance

· Date of preparation / last revision 07/14/2018 / -

· Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety **OSHA: Occupational Safety & Health** TLV: Threshold Limit Value PEL: Permissible Exposure Limit **REL: Recommended Exposure Limit**