



SAFETY DATA SHEET

1. Identification

Product identifier Fedtun
Recommended use For Industrial Use Only
Recommended restrictions Basic dry mix, for the working lining of steel continuous casting tundish

Manufacturer/Supplier information

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2. Hazard(s) identification

This product is not classified according to the Globally Harmonized System (GHS).

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.
OSHA-defined hazards Not classified.
Label elements None.
Signal word Not applicable.
Hazard Statement Not applicable.
Precautionary statement Not applicable.
Hazard(s) not otherwise Classified (HNOC) None Known.

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

3. Composition/information on ingredients

Description: Mixture of the substances listed below with nonhazardous additions

<i>Chemical Name</i>	<i>Common Name/Synonyms</i>	<i>CAS Number</i>	<i>%</i>
Magnesium Oxide		1309-48-4	*

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

General information No special measures are required.
After inhalation Supply fresh air; consult a doctor in case of complaints.
After skin contact Generally the product does not irritate the skin.
After eye contact Rinse opened the eye for several minutes under running water.
After swallowing If symptoms persist consult the doctor.
Information for doctor
Most important symptoms and effects both acute and delayed:
 No further relevant information is available.
Indication of any immediate medical attention and special treatment needed:
 No further relevant information is available.

5. Fire-fighting measures

Suitable extinguishing agents Use fire-fighting measures that suit the environment.
Special hazards arising from the substance or mixture
 No further relevant information is available.
Special protective equipment and precautions for firefighters
 No special measures are required.

6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures
 For personal protection, see Section 8 of the SDS.
Methods and materials for containment and cleaning up
 Pick up mechanically.
 See section 7 for information on safe handling.
 See section 13 for disposal information.
Environmental precautions Do not allow to enter sewers, surface, or groundwater.
Protective Action Criteria for Chemicals

<i>PAC-1</i>			
CAS 1309-48-4	Magnesium Oxide		30 mg/m ³
<i>PAC-2</i>			
CAS 1309-48-4	Magnesium Oxide		120 mg/m ³
<i>PAC-3</i>			
CAS 1309-48-4	Magnesium Oxide		730 mg/m ³

7. Handling and storage

Precautions for safe handling No special measures are required.
Information about protection against explosions and fires
 No special measures are required.
Conditions for safe storage, including any incompatibilities
 Store in dry conditions.

8. Exposure controls/personal protection

Occupational exposure limits

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<i>Components</i>	<i>Type</i>	<i>Value</i>	<i>Form</i>
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Magnesium Oxide (CAS 1309-48-4)	PEL	15 mg/m ³	Fume; total particulate.
Magnesium Oxide (CAS 1309-48-4)	TLV	10 mg/m ³	As inhalable fraction.

Exposure controls

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses.

Body protection Protective work clothing.

Skin protection

Hand protection The glove material has to be impermeable and resistant to the product/the substance/the preparation. Due to missing tests, no recommendation for the glove material can be given for the product/the preparation/the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion, and degradation.

Material of gloves The selection of suitable gloves does not only depend on the material but also further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked before the application.

Penetration time of glove material

The exact breakthrough time must be found out by the manufacturer of the protective gloves and has to be observed.

Respiratory protection

A Suitable respiratory protective device is recommended.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary



General Hygiene Considerations

The usual precautionary measures for handling chemicals should be followed.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Powder.

Color Beige.

Odor Odorless.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range

Not available.

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Auto-igniting

Product is not self-igniting.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

Not available.

Flammability limit - upper (%)

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Danger of explosion

Product does not present an explosion hazard.

Vapor pressure

Not available.

Density at 20 °C (68 °F)

1.1 g/cm³ (9.18 lbs./gal) (bulk density)

Vapor density

Not available.

Relative density

Not available.

Solubility(ies)

Solubility (water)

Insoluble.

Solvent content

VOC content

0.00%

Solids content

100.0%

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

Not available.

10. Stability and reactivity

Reactivity

No further relevant information is available.

Chemical stability

Possibility of hazardous reactions

No dangerous reactions are known.

Thermal decomposition/conditions to avoid

No decomposition if used according to specifications. No further relevant information is available.

Incompatible materials

No further relevant information is available.

Hazardous decomposition products

No dangerous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Skin contact

No irritating effect.

Eye contact

No irritating effect.

Sensitization No sensitizing effects are known.

Additional toxicological information

The product is not subject to classification according to internally approved calculation methods for preparation. 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.

12. Ecological information

Aquatic toxicity No further relevant information is available.

Persistence and degradability No further relevant information is available.

Bio-accumulative potential No further relevant information is available.

Mobility in soil No further relevant information is available.

Additional ecological information

General notes Water hazard class 1 (self-assessment): slightly hazardous for water.

Do not allow undiluted products or large quantities of them to reach groundwater, watercourse, or sewage systems.

Results of PBT and vPvB assessment

PBT Not applicable

vPvB Not applicable

Other adverse effects No further relevant information is available.

13. Disposal considerations

Disposal instructions Waste can be transported to an approved landfill.

Hazardous waste code Not applicable.

Waste from residues / unused products Not available.

Contaminated packaging Disposal must be made according to official regulations.

14. Transport information

DOT Not regulated as dangerous goods.

IATA Not regulated as dangerous goods.

IMDG Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

Environment hazard Not applicable.

Special precautions for users Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. One or more components are not listed on TSCA. All chemical substances in this product are listed on the TSCA chemical substance inventory where required.

TSCA Toxic Substances Control Act

1309-48-4 Magnesium oxide
CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 355 Extremely Hazardous Substances

Not listed.

SARA 313 Specific Toxic Chemical Listings

Not listed.

US OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Chemicals known to cause reproductive toxicity in females

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity in males

None of the ingredients are listed.

Carcinogenic categories

EPA

None of the ingredients is listed.

TLV Threshold Limit Value established by ACGIH

1309-48-4 Magnesium Oxide A4

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

US California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US Massachusetts RTK - Substance List

Not listed.

US New Jersey Worker and Community Right-to-Know Act

Not listed.

US Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US Rhode Island RTK Not listed.

16. Other information, including date of preparation or last revision

This information is supplied to be informative and to alert the user of the material. The ultimate compliance with federal, state, and/or local regulations concerning the use of this material, or compliance with respect to product liability, rests solely upon the purchaser thereof.

Prepared by: FRC Global

Date: September 2021

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End of Safety Data Sheet