

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

1.1. Product identifier

C3 Monolithic Refractory

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

Relevant identified uses: Metal production and processing, including alloys
Uses advised against: Other

1.3. Details of the supplier of the safety data sheet

Manufacturer

Morgan Molten Metal Systems GmbH

Telephone: +49 (0) 56 57 7010

Noltinastrasse 29

D 37297 Berkatal

Morgan Molten Metal Systems (Suzhou) Co. Ltd.

Telephone: +86 (0) 512 6292 3188

108 Tong Sheng Lu

CN 215 126 Suzhou Jiangsu

Morganite Crucible (India) Ltd

Telephone: +91 (0) 240 2554405

B-11 M.I.D.C.

IN 431 136 Waluj Aurangabad Maharashtra

Morganite Brasil Ltda

Telephone: +55 (0) 11 4075-0400

Av do Taboão 3265

BR 09565-000 São Bernardo do Campo São Paulo

Supplier (manufacturer/importer/only representative/downstream user/distributor)

Morgan Molten Metal Systems GmbH

Telephone: +49 (0) 56 57 7010

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Information contact

Morgan Molten Metal Systems GmbH

Information telephone +49 (0) 56 57 7010

Website <http://www.morganmms.com/>

1.4. Emergency telephone number

Morgan Molten Metal Systems GmbH

Telephone +49 (0) 56 57 7010

This number is serviced during office hours.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008:
Acute Tox. 4, H332

2.2. Label elements

Classification according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms



Signal word: GHS07
Warning

Hazard statements:

H332 Harmful if inhaled.

Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

Special labelling of particular preparations:

Restricted to professional users. Safety data sheet available for professional user on request.

2.3. Other hazards

Extended inhalation at levels above the workplace limit value can cause irreversible damage to the lungs (silicosis). Activities or processes involving exposure to respirable quartz and cristobalite dust (except coal miner's dust) are considered to be carcinogenic Category 1 (EU): known to be carcinogenic to humans.

SECTION 3: Composition / information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Mixture related information

Composition/information on ingredients

Substance:	CAS-No.:	REACH-no.:	Concentration:	Classification: EC 1272/2008 (CLP):	M, ATE, Note
alumina	1344-28-1		40 - 60 %	-	-
mullite	1302-93-8		40 - 60 %	-	-
cristobalite	14464-46-1		0 - 10 %	-	-
quartz	14808-60-7		0 - 10 %	-	-

(Full text of H- and EUH-statements: see section 16.)

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: In case of accident or unwellness, seek medical advice immediately

In case of inhalation: Move victim to fresh air. Put victim at rest and keep warm. In case of irregular breathing or respiratory arrest provide artificial respiration. Position and transport victim on their side. In case of respiratory distress, bring into semi-upright, seated position. Seek medical attention if problems persist.

Following skin contact: After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.
After eye contact: In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
After ingestion: Rinse mouth immediately and drink plenty of water. Seek medical attention if problems persist.

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

Symptoms Respiratory complaints Asthmatic complaints Dyspnoea Extended inhalation at levels above the workplace limit value can cause irreversible damage to the lungs (silicosis). Danger Extended inhalation at levels above the workplace limit value can cause irreversible damage to the lungs (silicosis).

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

Notes for the doctor Provide fresh air. In case of breathing difficulties administer oxygen. Treatment: Treat symptomatically. Where appropriate artificial ventilation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Water fog. High power water jet. Carbon dioxide (CO₂). Foam. dry extinguishing powder.
Unsuitable extinguishing media none

5.2. Special hazards arising from the substance or mixture

none

5.3. Advice for firefighters

General information

Co-ordinate fire-fighting measures to the fire surroundings. The product itself does not burn. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Special protective equipment for fire-fighters:

In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment. Remove persons to safety.

6.2. Environmental precautions

No special environmental protection measures are necessary.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Avoid generation of dust. Treat the recovered material as prescribed in the section on waste disposal. Avoid generation of dust. Provide adequate ventilation.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

Avoid generation of dust. Do not breathe dust. Provide adequate ventilation as well as local exhaustion at critical locations. Provide adequate ventilation as well as local exhaustion at critical locations.

Precautions against fire and explosion:

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

none Provide adequate ventilation as well as local exhaustion at critical locations. Keep/Store only in original container. Keep container tightly closed. none

Hints on joint storage

Do not store together with: Explosive substances. Highly oxidising substances Infectious substances Radioactive substances Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

occupational exposure limit value

Substance:	CAS-No.:	Source:	Occupational exposure limit value:[ppm]	Occupational exposure limit value:[mg/m³]	Limitation of exposure peaks:	Remark:

Substance with a common (EC) occupational exposure limit value.

Substance:	CAS-No.:	Source:	Occupational exposure limit value:[ppm]	Occupational exposure limit value:[mg/m³]	Limitation of exposure peaks:	Remark:

DNEL-/PNEC-values

DNEL value

Substance:	CAS-No.:	DNEL/DMEL

PNEC Value

Substance:	CAS-No.:	PNEC

Additional information

AGS A: respirable fraction E: inhalable fraction

8.2. Exposure controls

Occupational exposure controls:

Provide adequate ventilation as well as local exhaustion at critical locations. Technical measures and the application of suitable work processes have priority over personal protection equipment.

General protection and hygiene measures:

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Apply skin care products after work. Wash contaminated clothing prior to re-use.

Personal protection equipment

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

Respiratory protection

Respiratory protection necessary at: dust formation Suitable respiratory protection apparatus: Particle filter device (DIN EN 143)

Hand protection

The use of resistant protective gloves is recommended. Skin protection creams do not offer as effective protection as protective gloves. Therefore, suitable protective gloves should be preferred as much as possible. Suitable material: No information available. Experience has shown that the following glove materials are suitable for protection against undissolved solids: CR (polychloroprene, chloroprene rubber) NBR (Nitrile rubber) Butyl caoutchouc (butyl rubber) FKM (fluoro rubber) PVC (polyvinyl chloride)

Eye/face protection

Tightly sealed safety glasses.

Body protection:

Body protection: not required.

Environmental exposure controls

refer to chapter 7. No further action is necessary.

Consumer exposure controls

refer to chapter 7. No further action is necessary.

Exposure Scenario:

none

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Granulate
Colour: white grey brown
Odour: odourless
Odour threshold: none

Safety relevant basis data

	parameter	Value	unit	Remark
Melting point/freezing point:		1705	°C	
Initial boiling point and boiling range:				No data available
Flammability:				none
lower flammability or explosive limits:				not applicable
Upper flammability or explosive limits:				not applicable
Flash point:				none
Ignition temperature:				none
Decomposition temperature:				none
pH:				not applicable
Kinematic viscosity:				not applicable
Water solubility (g/L):		< 3		
Partition coefficient: n-octanol/water:				No data available
Vapour pressure:				not applicable
Density:		2,5 - 3,5	g/cm ³	

Relative density:
Particle properties:

not applicable
No data available

9.2. Other information

none

SECTION 10: Stability and reactivity

10.1. Reactivity

none

10.2. Chemical stability

With proper storage and handling the product is stable.

10.3. Possibility of hazardous reactions

none

10.4. Conditions to avoid

none

10.5. Incompatible materials

Hydrogen fluoride.

10.6. Hazardous decomposition products

none

SECTION 11: Toxicological information

11.1. Information on hazard classes within the meaning of Regulation (EC) No. 1272/2008

There are no data available on the mixture itself.

M-factor: - **Acute toxicity (dermal):** -
Acute toxicity (oral): - **Acute toxicity (inhalative):** -

Acute toxicity

Substance:	CAS-No.:	Toxicological information
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Skin corrosion/irritation:

slightly irritant but not relevant for classification.

Serious eye damage/irritation:

slightly irritant but not relevant for classification.

Respiratory or skin sensitisation:

not sensitising.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity:

Category 1 (EU): Known to be carcinogenic to man.

Germ cell mutagenicity:

No indications of human germ cell mutagenicity exist.

Reproductive toxicity:

No indications of human reproductive toxicity exist.

STOT-single exposure:

none

STOT-repeated exposure:

Extended inhalation at levels above the workplace limit value can cause irreversible damage to the lungs (silicosis).

Aspiration hazard

slightly irritant but not relevant for classification.

Additional information

not corrosive

11.2. Information about other hazards

11.2.1 Endocrine disrupting properties

No information available.

11.2.2 Other Information

none

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

Ecotoxicity

Substance:	CAS-No.:	Ecotoxicity

12.2. Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

12.4. Mobility in soil

none

12.5. Results of PBT and vPvB assessment

This substance does not meet the criteria for classification as PBT or vPvB.

12.6 Endocrine disruptive effect

No known endocrine disrupting properties

12.7. Other adverse effects

none

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal/Product:

Waste disposal according to EC Directives 75/442/EEC and 91/689/EEC on waste and hazardous waste in their latest versions.

Appropriate disposal / Package

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

List of proposed waste codes / waste designations according to EWC / AVV

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

SECTION 14: Transport information

14.1. UN number

UN No.: none

14.2. UN proper shipping name

Land transport (ADR/RID)

No dangerous good under transport regulations.

-

Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

No dangerous good under transport regulations.

-

14.3. Transport hazard class(es)

Hazard label(s) / Label: - Classification code: / Classification Code: -

14.4. Packing group

Packing group/ Packing Group: none

14.5. Environmental hazards

ADR/RID / IMDG / ICAO-TI / IATA-DGR:
Marine pollutant:

Yes

No

14.6. Special precautions for user

Land transport (ADR/RID)

transport category: - tunnel restriction code: -
Special provisions: - Limited quantity (LQ): -

Sea transport (IMDG)

EmS-No: -
Special provisions: - Limited quantity (LQ): -

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remark none

SECTION 15: Regulatory information

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

EU legislation

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer
The substance/mixture/product with its ingredients is not subject to the Regulation.

Regulation (EU) No 649/2012 on the export and import of dangerous chemicals
The substance/mixture/product with its ingredients is not subject to the Regulation.

The substance/product is registered with strictly controlled conditions as defined in Article 18(4) of Regulation (EC) No. 1907/2006 (REACH Regulation) and must therefore be handled as such.
not relevant

National regulations

Observe in addition any national regulations!

Restrictions of occupation

According to directive 94/33/EC, juveniles are only allowed to handle this product as long as all effects of dangerous substances are prevented.

Restrictions of occupation

Not subject to StörfallVO.

Solvents Regulation (31st BImSchV)

not relevant

Other regulations, restrictions and prohibition regulations

TRGS 900 TRGS 900

15.2. Chemical Safety Assessment

For this preparation a chemical safety assessment has been carried out. -
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Relevant H- and EUH-phrases (Number and full text):

Hazard statements

H332 Harmful if inhaled.

Training advice

Make sure that employees are aware of the intoxication risk. People wearing breathing apparatus must be appropriately trained.

Recommended restrictions of use:

refer to chapter 1.

Further remarks:

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage

Documentation of changes:

Update according to current regulations

Key literature references and sources for data

Data arise from reference works and literature.

Abbreviations and acronyms

none
