

SDS Number: MW0005-EU

According to (EC) No 1907/2006 and (EC) No 1272/2008

Date of Issue: June 1998

Date of Last Revision: March/2020

SECTION 1. IDENTIFICATION OF PRODUCT

Identification/Product Name(s): MaxRigidizer (2300°F & 2700°F)

Chemical family: The above mentioned product is a hardener.

Index Number: Not available

CAS Number: 24623-77-6 & 7732-18-5

CAS Name: Silicon dioxide & Aluminum hydroxide oxide

General Uses: Is used for applications with high velocity or flame impingement on ceramic wools. Rigidizer can be applied to the surface of Blanket, Modules or other high temperature insulations by spraying or brushing this to hardening agent for Fiber and Ceramic Products.

Manufacturer/Supplier: Nutec Europe, S.A. de C.V.
Eitua Industrialdea, 71A
48240 Berriz, Vizcaya - Spain
Phone: +34 946 203 700
Fax: +34 946 827 060
<http://www.nuteceurope.com>

Emergency Contac Number: Tel: +34 946 203 700
Language: English
Opening hours: Only available during office hours

SECTION 2. HAZARDS IDENTIFICATION**2.1 CLASSIFICATION OF THE SUBSTANCE / MIXTURE****2.1.1. CLASSIFICATION ACCORDING TO REGULATION (EC) No 1272/2008**

Not classified as hazardous according to Classification, Labelling and Packaging regulations (CLP) 1272/2008 EEC.

2.1.2 ADDITIONAL INFORMATION:

N/A

2.2 LABELLING ELEMENTS

Not applicable

Component	Classification	Hazard pictogram	H Statement
Silicon dioxide	(EC) No. 231-545-4	N/A	N/A
Aluminum hydroxide oxide	(EC) 246-368-8	N/A	N/A

Hazard pictogram: Not applicable
Signal Word: Not applicable
Hazard Statements: Not applicable
Precautionary statements: Do not handle until all safety instructions have been read and understood. (P202)

2.3 Other hazards which do not result in classification:

Mild mechanical irritation to skin, eyes and upper respiratory system may result from exposure to high dust concentrations of dried product.

These are temporary effects.

Pre-existing skin and respiratory conditions including dermatitis, asthma or chronic lung disease might be aggravated by exposure.

SECTION 3. COMPOSITION/ INFORMATION ON INGREDIENTS**3.1 COMPOSITION**

COMPONENT	% by weight	CAS NUMBER	Index number in CLP Annex VI	REACH Registration Number	Hazard Classification according to CLP
Colloidal Silica	< 30	7631-86-9	Not applicable	Not yet available	Not Classified
Aluminum hydroxide oxide	< 30	24623-77-6	Not applicable	Not yet available	Not Classified
Water	>70	7732-18-5	Not applicable	Not yet available	Not Classified

Composition additional information None of the components are radioactive under the terms of European Directive Euratom 96/29.

3.2 DESCRIPTION

MaxRigidizer (2300°F, 2700°F), this product is used to produce a hard surface finish.

SECTION 4. FIRST AND MEASURES**4.1 - General Advice**

Show this safety datasheet to the doctor in attendance.
First responder needs to protect himself.

4.2 - Inhalation

Negligible, unlikely exposure pathway.

4.5 - Skin

Wash with water, use skin cream if necessary.

Remove all contaminated clothing, and launder before reuse.

4.6 - Eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

4.7 - Nose and Throat

Immediately rinse mouth with water.

Seek medical advice if necessary.

See toxicological information (Section 11)

Most important symptoms/effects, acute and delayed

Skin contact may aggravate existing skin disease.

Indication of immediate medical attention and special treatment needed, if necessary**NOTES TO PHYSICIANS**

- All treatments should be based on observed signs and symptoms of distress in the patient.
- Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
- Treat symptomatically. No specific antidote available.

SECTION 5. FIRE FIGHTING MEASURES**5.1 - Suitable (and unsuitable) extinguishing media**

Use extinguishing agent suitable for surrounding combustible materials.

5.2 - Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):

Non-combustible product, class of reaction to fire is zero.
Packaging and surrounding materials may be combustible

Specific extinguishing methods:

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

5.3 - Special protective equipment and precautions for fire-fighters

NFPA Codes: Flammability: 0 Health: 0 Reactivity: 0 Special: 0

SECTION 6. ACCIDENTAL RELEASE MEASURES**6.1 - Personal precautions, protective equipment, and emergency procedures**

Refer to protective measures listed in sections 7 and 8.

6.2 - Methods and materials for containment and cleaning up

Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contains material to ensure runoff does not reach a waterway.

EMPTY CONTAINERS

Product packaging may contain residue. Do not reuse.

SECTION 7. HANDLING AND STORAGE**7.1 - Precautions for safe handling**

Wash hands thoroughly after handling. Use only with adequate ventilation.

Handling of dried product can be a source of dust emission and therefore the processes should be designed to limit the amount of handling. Whenever possible, handling should be carried out under controlled conditions (i.e., using dust exhaust system). Regular good housekeeping will minimise secondary dust dispersal

7.2 - Conditions for safe storage, including any incompatibilities

Keep out of reach of children. Keep container tightly closed.

Keep in properly labelled containers.

Store in an area that is dry, well-ventilated; away from incompatible materials (see Section 10. Stability and Reactivity).

SECTION 8. EXPOSURE CONTROL / PERSONAL PROTECTION**8.1 CONTROL PARAMETERS**

Industrial hygiene standards and occupational exposure limits vary between countries and local jurisdictions. Check which exposure levels apply to your facility and comply with local regulations. If no regulatory dust or other standards apply, a qualified industrial hygienist can assist with a specific workplace evaluation including recommendations for respiratory protection. Examples of national OELs (November 2014) are given in the table below.

Country	Total Dust (mg/m ³)	Resp Dust (mg/m ³)	Source
Austria	10	6	Grenzwerteverordnung
Belgium	10	5	Valeurs limites d'exposition professionnelle – VLEP/ Grenswaarden voor beroepsmatige blootstelling – GWBB
Denmark	10	5	Grænseværdier for stoffer og materialer
Finland	No limit	No limit	Finnish Ministry of Social Affairs and Health
France	10	5	Institut National de Recherche et de Sécurité
Germany	10	1.25	TRGS 900
Hungary	No limit	No limit	EÜM-SZCSM rendelet
Ireland	10	4	HAS – Ireland
Italy	10	3	Uses EU values
Netherlands	10	5	Netherlands 10 5 0.5 SER
Luxembourg	10	6	Agents Chimiques, Cancérigènes Ou Mutagènes Au Travail
Norway	10	5	Veiledning om administrative normer for forurensning i arbeidsatmosfære
Poland	No limit	No limit	Dziennik Ustaw 2010
Spain	10	3	INSHT
Sweden	10	5	AFS 2005:17
Switzerland	10	6	SUVA - Valeurs limites d'exposition aux postes de travail
UK	10	4	EH40/2005

Note:

Gravimetric concentrations of respirable dust-8-hr time weighted average.

Information on monitoring procedures

United Kingdom

MDHS 14/4 - "General methods for sampling and gravimetric analysis of respirable, thoracic and inhalable aerosols"

NIOSH

NIOSH 0500 "Particulates not otherwise regulated, total"

NIOSH 0600 "Particulates not otherwise regulated, respirable"

Occupational Exposure Limit, for Aluminum hydroxide oxide (inhalable / total dust):

<u>Component</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>CAS #</u>
Aluminum Oxide Hydroxide	15 mg/m ³ , total dust 5 mg/m ³ , respirable dust	10 mg/m ³	24623-77-6

Unless otherwise noted, all values are reported as 8-hour Time-Weighted-Averages (TWA) and total dust (particulates only).

8.2 EXPOSURE CONTROLS

Eye protection:

The appropriate equipment should be selected for the particular use intended for this material.

Recommended: Safety glasses

Hand protection:

Wear protective gloves. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection:

Wear suitable protective clothing.

Respiratory protection:

No personal respiratory protective equipment normally required. For dust concentrations below the applicable exposure limit value, RPE is not required but FFP2 respirators should be provided for use on a voluntary basis.

Hygiene measures:

Wash hands before breaks and immediately after handling the product. Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.

HUMAN EXPOSURE CHARACTERIZATION:

Based on our recommended product application and personal protective equipment, the potential human exposure is:
Low

8.2.3 Environmental Exposure Controls

See section 13.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Liquid	PARTITION COEFFICIENT	Not applicable
Viscosity (dynamic)	< 20 m Pa.s (25 °C)	ODOUR	None
FLASH POINT	Not applicable	MELTING POINT	Not applicable
AUTOFLAMMABILITY	Not applicable	FLAMMABILITY	Not applicable
OXIDIZING PROPERTIES	Not applicable	EXPLOSIVE PROPERTIES	Not applicable
RELATIVE DENSITY (Water)	1 - 2	VAPOR PRESSURE	Not applicable
SOLUBILITY	Not applicable	pH	6 - 7 ASTM E70

9.2 OTHER SAFETY INFORMATION

These fibres are dense materials and so will settle rapidly from both air and liquid

SECTION 10. STABILITY AND REACTIVITY**10.1 REACTIVITY**

No data available

10.2 CHEMICAL STABILITY

Stable under normal handling and storage conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

None

10.4 CONDITIONS TO AVOID

Please refer to handling and storage advice in Section 7

10.5 INCOMPATIBLE MATERIALS

Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Upon heating above 900°C for sustained periods, this amorphous material begins to transform to mixtures of crystalline phases. For further information please refer to Section 16.

SECTION 11. TOXICOLOGICAL INFORMATION**11.1 TOXICOKINETICS, METABOLISM AND DISTRIBUTION****11.1.1 Basic Toxicokinetics****Symptoms related to the physical, chemical and toxicological characteristics**

Inhalation None.

Skin Irritant. Can cause redness, irritation, inflammation, on prolonged contact.

Eyes Irritant. Can cause redness, irritation.

Ingestion None.

Immediate, delayed and chronic effects from short- and long-term exposure

Chronic effects this product does not contain any ingredient designated by ECHA as probable or suspected human carcinogens.

Numerical measures of toxicity

Acute oral toxicity:

Rat: > 15,380 mg/kg

Test substance: Product

Acute toxicity estimate: > 5,000 mg/kg

Acute inhalation toxicity:

Acute toxicity estimate: > 40 mg/l

Exposure time: 4 h

Acute dermal toxicity:

Acute toxicity estimate: > 5,000 mg/kg

Skin corrosion/irritation:

Result: 0.3

Method: Draize Test

Test substance: Product

Serious eye damage/eye irritation:

Result: 3.7

Method: Draize Test

Test substance: Product

Respiratory or skin sensitization:

No data available

Carcinogenicity:

No data available

Reproductive effects:

No data available

Germ cell mutagenicity:
No data available

Teratogenicity:
No data available

STOT - single exposure:
No data available

STOT - repeated exposure:
No data available

Aspiration toxicity:
No data available

a) Carcinogenicity

This product does not contain any ingredient designated as probable or suspected human carcinogens classified by the ECHA

SECTION 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity (aquatic and terrestrial, where available)	LC50 Bluegill Sunfish: > 1,000 mg/l Exposure time: 96 hrs. Test substance: Product
12.2 Persistence and degradability	LC50 Rainbow Trout: > 1,000 mg/l Exposure time: 96 hrs. Test substance: Product
12.3 Bioaccumulative potential	Not relevant, inorganic product. No bioaccumulative potential available.
12.4 Mobility in soil	Air <5% Water 30-50% Soil 50-70% Ultimate destination sediment.
12.5 Resultados de la valoración PBT Y MPMB	This mixture is not considered to be persistent, bioaccumulating nor toxic (PBT). This mixture is not considered to be very persistent and very bioaccumulative (vPvB).
12.6 Other adverse effects (such as hazardous to the ozone layer)	No adverse effects of this material on the environment are anticipated.

SECTION 13. DISPOSAL CONSIDERATION**13.1 Waste Disposal Method**

Advice on disposal Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Waste Code EPA:

Hazardous waste: NO

13.2 Other information

In the elimination of waste and assignment of the European code of waste CER, it is necessary to consider the possible contamination during its use and consult experts in the matter if necessary.

SECTION 14. TRANSPORT INFORMATION**14.1 UN number**

Not Applicable

14.2 UN proper shipping name

Not Applicable

14.3 Transport hazard class(es)1

Not Applicable

14.4 Packing group, if applicable

Not Applicable

14.5 Environmental hazards (e.g., Marine pollutant (Yes/No))

Not a marine pollutant

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Not Applicable

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

Not Applicable

SECTION 15. REGULATORY INFORMATION**15.1 - Safety health and environment regulations/legislation specific for the substances or mixtures**

EU regulations:

- Regulation (EC) No 1907/2006 dated 18th December 2006 on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

- Regulation (EC) No 1272/2008 dated 20th January 2009 on classification, labelling and packaging of substances and mixtures (OJ L 353) - Annex of Regulation (EU) 2015/830
- Commission regulation (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.
- The 1st Adaptation to Technical Progress (ATP) to Regulation (EC) No 1272/2008 enters into force on 25 September 2009.

PROTECTION OF WORKERS

Shall be in accordance with several European Directives as amended and their implementations by the Member States:

- a) Council Directive 89/391/EEC dated 12 June 1989 "on the introduction of measures to encourage improvements in the safety and health of workers at work" (OJEC (Official Journal of the European Community) L 183 of 29 June 1989, p.1).
- b) Council Directive 98/24/EC dated 7 April 1998 "on the protection of workers from the risks related to chemical agents at work" (OJEC L 131 of 5 May 1998, p.11).

OTHER POSSIBLE REGULATIONS

Member States are in charge of implementing European Directives into their own national regulation within a period of time normally given in the Directive. Member States may impose more stringent requirements. Please always refer to any national regulation.

15.2 - Chemical Safety Assessment

Chemical Safety Reports have been requested from suppliers, as soon as this information is available it will be shared with downstream users.

SECTION 16. OTHER INFORMATION

Additional information and precautions to be considered upon removal of after service material

Continuous use of these products at temperatures above 900°C may, as with many other refractories, lead to the formation of cristobalite (a type of crystalline silica).

Please refer to sections 2, 11 and to national regulation on crystalline silica.

High concentrations of dusts may be generated when after-service products are mechanically disturbed during operations such as wrecking. Therefore Nutec recommends:

- a) control measures are taken to reduce dust emissions;
- b) all personnel directly involved wear an appropriate respirator to minimize exposure; and
- c) Compliance with local regulatory limits.

CARE Program**Uses advised against**

NOTE: The directives and subsequent regulations detailed in this Safety Data Sheet are only applicable to the European Union (EU) Countries and not to countries outside of the EU.

Websites

For more information connect to:

www.nuteceurope.com

Or European Industry Association Representing HTIW (ECFIA): 3, Rue du Colonel Moll, 75017 Paris
Tel. +33 (0) 6 31 48 74 26 <http://www.ecfia.eu/>

Revision Summary

Section 8 was updated

NOTICE:

The information presented here in is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorisation given or implied to practice any patented invention without a licence. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.