

**Trade name:** Molecular Sieves 13X**Product no.:** 239-07003-08 / 630-00964**Current version :** 4.0.2, issued: 15.09.2021**Replaced version:** 4.0.0, issued: 06.08.2019**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name

**Molecular Sieves 13X****1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses of the substance or mixture**

General chemical processes

**Uses advised against**

No data available.

**1.3 Details of the supplier of the safety data sheet****Address**

Shimadzu Europa GmbH

Albert-Hahn-Str. 6-10

47269 Duisburg

Telephone no. +49 (0)203 - 7687-0

Fax no. +49 (0)203 - 711045

**Information provided by / telephone**

Tel.: +49 (0)203 - 7687-0

**Advice on Safety Data Sheet**

sdb\_info@umco.de

**1.4 Emergency telephone number**

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Carc. 1A; H350

Muta. 2; H341

STOT RE 1; H372

**Classification information**

Classification and labelling are based on toxicological studies performed on the product (mixture).

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)****Hazard pictograms**

GHS08

**Signal word**

Danger

**Hazard statement(s)**

H341

Suspected of causing genetic defects

H350

May cause cancer.

H372

Causes damage to organs through prolonged or repeated exposure.

**Precautionary statement(s)**

P201

Obtain special instructions before use.

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313

IF exposed or concerned: Get medical advice/attention.

**Supplemental label elements**

"Restricted to professional users"

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No data available.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable. The product is not a substance.

**3.2 Mixtures****Chemical characterization**

baked mixture of synthetic zeolite (CAS 1318-02-1; EG.215-283-8) and clay.

**Hazardous ingredients**

No	Substance name	Classification (EC) 1272/2008 (CLP)	Additional information	
	CAS / EC / Index / REACH no		Concentration	%
1	<b>silicon dioxide, chemically prepared</b>			
	7631-86-9 231-545-4 - -	-	< 65.00	wt%
2	<b>aluminium oxide</b>			
	1344-28-1 215-691-6 - -	-	< 40.00	wt%
3	<b>disodium-oxide</b>			
	1313-59-3 215-208-9 - -	-	< 30.00	wt%
4	<b>Quartz (SiO<sub>2</sub>)</b>			
	14808-60-7 238-878-4 - -	Carc. 1A; H350i STOT RE 1; H372i Muta. 2; H341	< 5.00	wt%
5	<b>MAGNESIUM OXIDE</b>			
	1309-48-4 215-171-9 - -	-	< 5.00	wt%
6	<b>Tetrasodium-pyrophosphate</b>			
	7722-88-5 231-767-1 - -	-	< 2.00	wt%

Full Text for all H-phrases and EUH-phrases: pls. see section 16

No	Route, target organ, concrete effect
4	H350i inhalational; -, - H372i inhalational; -, -

**SECTION 4: First aid measures****4.1 Description of first aid measures****General information**

In case of persisting adverse effects, consult a physician. Change contaminated, saturated clothing.

**After inhalation**

Remove affected person from the immediate area. Ensure supply of fresh air. Take medical treatment. In case of breathing difficulties give oxygen.

**After skin contact**

Wash off immediately with soap and water. Get medical attention if pain still persists.

**After eye contact**

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.

**After ingestion**

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Seek medical advice immediately. Rinse the mouth thoroughly with water. Never give anything by mouth to an unconscious person.

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

No data available.

**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**

Dry chemical extinguisher

**Unsuitable extinguishing media**

No data available.

**5.2 Special hazards arising from the substance or mixture**

In the event of fire, the following can be released: Carbon dioxide (CO<sub>2</sub>); Carbon monoxide (CO)

**5.3 Advice for firefighters**

Use self-contained breathing apparatus. Wear protective clothing.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Avoid dust formation. Keep away from ignition sources.

**For emergency responders**

No data available. Personal protective equipment (PPE) - see Section 8.

**6.2 Environmental precautions**

Do not discharge into the drains/surface waters/groundwater.

**6.3 Methods and material for containment and cleaning up**

Collect mechanically. When collected, handle material as described under the section heading "Disposal considerations".

**6.4 Reference to other sections**

No data available.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling****Advice on safe handling**

Avoid the formation and deposition of dust. Provide good ventilation at the work area (local exhaust ventilation, if necessary).

**General protective and hygiene measures**

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Provide eye wash fountain in work area. Do not inhale dust.

**Advice on protection against fire and explosion**

Keep away from sources of heat and ignition.

**7.2 Conditions for safe storage, including any incompatibilities****Technical measures and storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place.

**Requirements for storage rooms and vessels**

Store product in closed containers.

**7.3 Specific end use(s)**

No data available.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational exposure limit values**

No	Substance name	CAS no.	EC no.
1	silicon dioxide, chemically prepared	7631-86-9	231-545-4
List of approved workplace exposure limits (WELs) / EH40			

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	Silica, amorphous inhalable dust		
	WEL long-term (8-hr TWA reference period)	6	mg/m <sup>3</sup>
	<b>List of approved workplace exposure limits (WELs) / EH40</b>		
	Silica, amorphous respirable dust		
	WEL long-term (8-hr TWA reference period)	2.4	mg/m <sup>3</sup>
<b>2</b>	<b>aluminium oxide</b>	<b>1344-28-1</b>	<b>215-691-6</b>
	<b>List of approved workplace exposure limits (WELs) / EH40</b>		
	Aluminium oxides		
	total inhalable dust		
	WEL long-term (8-hr TWA reference period)	10	mg/m <sup>3</sup>
	<b>List of approved workplace exposure limits (WELs) / EH40</b>		
	Aluminium oxides		
	respirable dust		
	WEL long-term (8-hr TWA reference period)	4	mg/m <sup>3</sup>
<b>3</b>	<b>MAGNESIUM OXIDE</b>	<b>1309-48-4</b>	<b>215-171-9</b>
	<b>List of approved workplace exposure limits (WELs) / EH40</b>		
	Magnesium oxide		
	inhalable dust		
	Mg		
	WEL long-term (8-hr TWA reference period)	10	mg/m <sup>3</sup>
	<b>List of approved workplace exposure limits (WELs) / EH40</b>		
	Magnesium oxide		
	fume and respirable dust		
	Mg		
	WEL long-term (8-hr TWA reference period)	4	mg/m <sup>3</sup>
<b>4</b>	<b>Tetrasodium-pyrophosphate</b>	<b>7722-88-5</b>	<b>231-767-1</b>
	<b>List of approved workplace exposure limits (WELs) / EH40</b>		
	Tetrasodium pyrophosphate		
	WEL long-term (8-hr TWA reference period)	5	mg/m <sup>3</sup>

**8.2 Exposure controls****Appropriate engineering controls**

No data available.

**Personal protective equipment****Respiratory protection**

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event that workplace threshold values are not specified. Dust mask

**Eye / face protection**

Safety glasses (EN 166)

**Hand protection**

In case of intensive contact, wear protective gloves (EN 374). Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

**Other**

Normal chemical work clothing.

**Environmental exposure controls**

No data available.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

<b>State of aggregation</b>
solid
<b>Form/Colour</b>
solid
white to grey
<b>Odour</b>
odourless
<b>pH value</b>
No data available
<b>Boiling point / boiling range</b>
No data available

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<b>Melting point/freezing point</b>	
No data available	
<b>Decomposition temperature</b>	
No data available	
<b>Flash point</b>	
Not applicable	
<b>Ignition temperature</b>	
No data available	
<b>Flammability</b>	
No data available	
<b>Lower explosion limit</b>	
No data available	
<b>Upper explosion limit</b>	
No data available	
<b>Vapour pressure</b>	
No data available	
<b>Relative vapour density</b>	
No data available	
<b>Relative density</b>	
No data available	
<b>Density</b>	
No data available	
<b>Bulk density</b>	
Value	600 - 900 g/l
<b>Solubility in water</b>	
Comments	insoluble
<b>Solubility</b>	
No data available	
<b>Partition coefficient n-octanol/water (log value)</b>	
No data available	
<b>Viscosity</b>	
No data available	
<b>Particle characteristics</b>	
No data available	

**9.2 Other information**

<b>Other information</b>	
No data available.	

**SECTION 10: Stability and reactivity****10.1 Reactivity**

No data available.

**10.2 Chemical stability**

Stable if stored and handled properly.

**10.3 Possibility of hazardous reactions**

No data available.

**10.4 Conditions to avoid**

No data available.

**10.5 Incompatible materials**

No data available.

**10.6 Hazardous decomposition products**

No hazardous decomposition products known.

**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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Acute oral toxicity			
No	Product Name		
1	Molecular Sieves 13X		
LD50	>	32000	mg/kg
Species	rat		
Source	Manufacturer		
Acute dermal toxicity			
No	Product Name		
1	Molecular Sieves 13X		
LD50	>	2000	mg/kg
Species	rabbit		
Source	Manufacturer		
Acute inhalational toxicity			
No data available			
Skin corrosion/irritation			
No	Product Name		
1	Molecular Sieves 13X		
Source	Manufacturer		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Serious eye damage/irritation			
No	Product Name		
1	Molecular Sieves 13X		
Source	Manufacturer		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Respiratory or skin sensitisation			
No	Product Name		
1	Molecular Sieves 13X		
Route of exposure	Skin		
Source	Manufacturer		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Germ cell mutagenicity			
No	Product Name		
1	Molecular Sieves 13X		
Evaluation/classification	Based on available data, the classification criteria are met.		
Reproduction toxicity			
No data available			
Carcinogenicity			
No	Product Name		
1	Molecular Sieves 13X		
Source	Manufacturer		
Evaluation/classification	Suspected of causing cancer.		
STOT - single exposure			
No data available			
STOT - repeated exposure			
No	Product Name		
1	Molecular Sieves 13X		
Source	Manufacturer		
Effects	May cause damage to organs through prolonged or repeated exposure		
Aspiration hazard			
No data available			
Symptoms related to the physical, chemical and toxicological characteristics			
Eye contact may cause mechanical irritation through dust particles.			
Delayed and immediate effects as well as chronic effects from short and long-term exposure			
Inhalation of dusts may irritate the respiratory tract.			

**11.2 Information on other hazards****Endocrine disrupting properties**

No data available.

**Other information**

No data available.

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No data available

**Toxicity to fish (chronic)**

No data available

**Toxicity to Daphnia (acute)**

No data available

**Toxicity to Daphnia (chronic)**

No data available

**Toxicity to algae (acute)**

No data available

**Toxicity to algae (chronic)**

No data available

**Bacteria toxicity**

No data available

**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**

No data available.

**12.6 Endocrine disrupting properties**

No data available.

**12.7 Other adverse effects**

No data available.

**12.8 Other information****Other information**

Do not discharge product unmonitored into the environment.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

**Packaging**

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

**SECTION 14: Transport information****14.1 Transport ADR/RID/ADN**

The product is not subject to ADR/RID/ADN regulations.

**14.2 Transport IMDG**

The product is not subject to IMDG regulations.

**14.3 Transport ICAO-TI / IATA**

The product is not subject to ICAO-TI / IATA regulations.

**14.4 Other information**

No data available.

**14.5 Environmental hazards**

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

**14.6 Special precautions for user**

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No data available.

**14.7 Maritime transport in bulk according to IMO instruments**

Not relevant

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations****Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

**REACH candidate list of substances of very high concern (SVHC) for authorisation**

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

**Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances subject to restriction as listed in Annex XVII of the REACH regulation (EC) 1907/2006.

**Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances**

This product is not subject to Part 1 or 2 of Annex I.

**15.2 Chemical safety assessment**

A chemical safety assessment has not been carried out for this mixture.

**SECTION 16: Other information****Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

**Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)**

H350i May cause cancer by inhalation.

H372i Causes damage to organs through prolonged or repeated exposure if inhaled.

**Creation of the safety data sheet**

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

**Alterations/supplements:**

Alterations to the previous edition are marked in the left-hand margin.

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Prod-ID 654866