

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product Name : mSORB 3A, 4A, 5A, 13X
Synonym : synthetic zeolite

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

Recommended use : Adsorbent/Desiccant

1.3 Details of the supplier of the safety data sheet

Producer :

Telephone :

1.4 Emergency telephone number

Emergency : +1 (847) 292-8800

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture

GHS classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin irritation (Category 3), H316
Eye irritant (Category 2B), H320
Specific organ toxicity – single exposure (Category 3), Respiratory system, H335

2.2 GHS label elements, including precautionary statements

Pictogram:



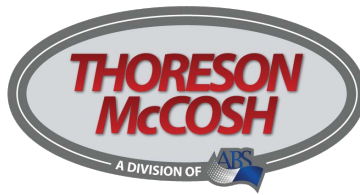
Signal word: Warning

Hazard statement(s)

H316	Causes mild skin irritation
H320	Causes eye irritation
H335	May cause respiratory irritation

Precautionary statement(s)

P261	Avoid breathing dust
P264	Wash hands thoroughly after handling
P271	Use only outdoors or in a well-ventilated area



P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305 + P351 + P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312	Call a POISON CENTER if you feel unwell
P332 + P313	If skin irritation occurs: Get medical advice
P227 + P313	If eye irritation persists: Get medical advice
P403 + P233	Store in well-ventilated place. Keep container tightly closed
P501	Dispose of contents/container in accordance with local regulation(s)

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical identity	: Molecular Sieve; 3a,4a,5a,13x
Common name	: Zeolite, synthetic
Numbers of identity	: CAS-Nr.:1318-02-1 (mSorb 3a) : CAS-Nr.: 1344-00-9 (mSorb 4a) : CAS Nr.: 69912-79-4 (mSorb 5a) : CAS Nr.: 63231-69-6 (mSorb 13X)

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a qualified medical professional. Show this data sheet to the doctor in attendance. Move out of the dangerous area.

If ingested

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, get medical attention immediately. Loosen tight clothing such as a collar, tie, or belt.

Skin contact

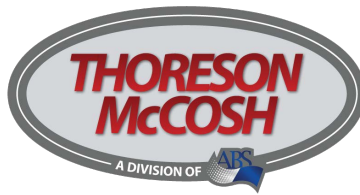
Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Eye contact

Flush eyes with plenty of water. Check for and remove any contact lenses if possible. Continue flushing eyes with water for at least 15 minutes. Get medical attention if irritation occurs.

Inhalation

Move individual to fresh air.



4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media
Product is non-flammable

5.2 Special hazards arising from the substance or mixture
Spent or used product may contain adsorbed flammable or otherwise hazardous substances upon exposure to heat or water. Product user must identify adsorbed substances and inform firefighters of potential hazards.

5.3 Advice for firefighters
Special protective equipment – standard PPE and equipment. Active product gives off heat when exposed to water and can burn tissue. Flush with water to dissipate the heat. If dusty conditions prevail, a dust mask is recommended.

5.4 Further information

	HMS	NFPA
Health	1	1
Flammability	0	0
Reactivity	0	1

Specific methods – no special methods required

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

6. ACCIDENTAL RELEASE MEASURES

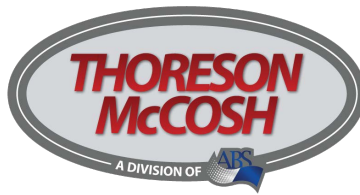
6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing dust. Ensure adequate ventilation. For personal protection see section 8.

6.2 Environmental precautions
Not applicable.

6.3 Methods and materials for containment and cleaning up
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Dispose of material according to local and regional requirements.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Do not breathe dust. For precautions see section 2.2.



7.2 Conditions for safe storage, including any incompatibilities
 Suitable for any general chemical storage area. Keep container tightly closed.

7.3 Specific end use(s)
 Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters/exposure limits

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Zeolite (CAS No. 1318-02-1)	10 mg/m ³ (TWA)	3 mg/m ³ (TWA)	15 mg/m ³ (TWA)	5 mg/m ³ (TWA)

8.2 Appropriate engineering controls
 Use process enclosures, local exhaust ventilation, or other engineering controls to limit airborne levels. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Personal protective equipment
 Safety glasses, lab coat, and dust respirator. Be sure to use an NIOSH approved certified respirator or equivalent.

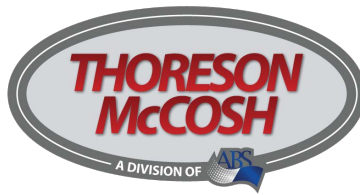
9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	: Solid (Beads)
Color	: White, Grey, Beige
Odor	: Odorless
Odor threshold	: No data available
pH-value	: No data available
Melting point	: No data available
Freezing Point	: No data available
Initial boiling point	: No data available
Flash point	: No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: Non-flammable
Explosion limits	: No data available
Vapor pressure	: No data available
Vapor density	: No data available
Relative density	: 550-850g/L
Solubility	: No data available
Partition coefficient	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available

10. STABILITY AND REACTIVITY

10.2 Chemical stability



The product is stable under normal ambient and anticipated storage and handling conditions of temperature and storage.

- 10.3 Possibility of hazardous reactions**
Used product may release adsorbed hazardous materials upon exposure to heat, humid air, or water.
- 10.4 Conditions to avoid**
See section 10.3.
- 10.5 Incompatible materials**
Prevent unintentional contact with water or moisture.
- 10.6 Hazardous decomposition products**
Not applicable.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effect

Acute and Chronic Toxicity

Inhalation	: LC50 rat > 18.3 mg/L
Ingestion	: LD50 rat > 10,000 mg/kg
Dermal	: LD50 rabbit > 2000 mg/kg

Short term single exposure unlikely to cause skin irritation. Ingestion, inhalation, or contact with eyes or mucous membranes may cause irritation or thermal burns. Asthma and chronic respiratory conditions may be aggravated by exposure to this product.

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

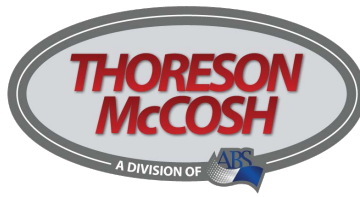
Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.



NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by OSHA.

Reproductive toxicity
No data available

Specific target organ toxicity following single exposure
Inhalation – May cause respiratory irritation.

Specific target organ toxicity following repeated exposure
No data available

Aspiration hazard
Dust may irritate lungs.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

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 Other adverse effects

No data available.

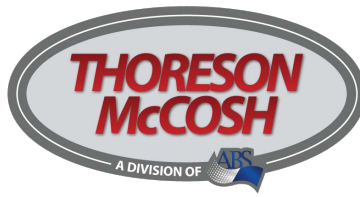
13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Dispose of in accordance with federal, state, and local environmental control regulations.

Contaminated packaging: Packaging may contain residual dust. Dispose of in accordance with federal, state, and local environmental control regulations.

14. TRANSPORT INFORMATION



DOT (U.S.A.)
Not a dangerous good.

IMDG
Not a dangerous good.

Transport hazard classes
Not applicable.

Packing group
Not applicable.

Environmental hazards
See section 12.

Transport in bulk
Not applicable.

Special precautions for users
Not applicable.

15. REGULATORY INFORMATION

15.1 Federal and state regulations:

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (de Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute health hazard

Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components

Molecular Sieve 3A, 4A, 5A, 13X

CAS-No.: not available

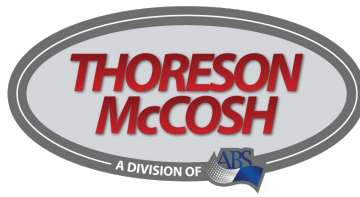
Revision date: not available

New Jersey Right to Know Components

Molecular Sieve 3A, 4A, 5A, 13X

CAS-No.: not available

Revision date: not available



California Proposition 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

DOT Classification

Not a DOT controlled material (United States)

15.2 Other classifications

WHMIS (Canada)

Not controlled.

DSCL (EEC)

This product is not classifiable according to the EU regulations.

HMIS (U.S.A.)

Health hazard : 1
Fire hazard : 0
Reactivity : 0
Personal protection : E

National Fire Protection Association (U.S.A.)

Health : 1
Flammability : 0
Reactivity : 1

Toxic Control Substances Act (TSCA)

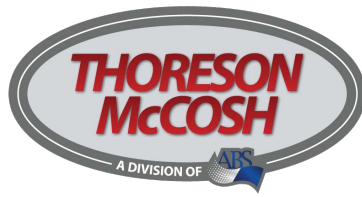
This product complies with all applicable rules or orders under the Toxic Control Substances Act (TSCA).

16. OTHER INFORMATION

16.1 Preparation Date : November 6, 2015
Revision Number : 3
Revision Date : May 9, 2016
Revised By : KT
Approved By : BW

16.2 Warranty

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