

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product Name : mSORB Indicating Molecular Sieve
Synonym : Zeolite, synthetic, indicating

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

Recommended use : Adsorbent

1.3 Details of the supplier of the safety data sheet

Producer : Interra Global Corporation
800 Busse Highway, Suite 101
Park Ridge, IL 60068
USA

Telephone : +1 (847) 292-8600

1.4 Emergency telephone number

Emergency : +1 (847) 292-8600

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture

GHS classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin sensitization (Category 1), H317
Respiratory sensitization (Category 1), H334
Reproductive toxicity (Category 1B), H360
Carcinogenicity (Category 2), H351
Acute aquatic toxicity (Category 2), H401
Eye irritant (Category 2A), H319
Specific organ toxicity – single exposure (Category 3), Respiratory system, H335
Chronic aquatic toxicity (Category 3), H412

2.2 GHS label elements, including precautionary statements

Pictogram:



Signal word: Danger

Hazard statement(s)

H303	May be harmful if swallowed
H317	May cause allergic skin reaction
H319	Causes serious eye irritation



H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
H401	Toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects

Precautionary statement(s)

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P261	Avoid breathing dust
P264	Wash hands thoroughly after handling
P271	Use only outdoors or in a well-ventilated area
P272	Contaminated clothing should not be allowed out of the workplace
P280	Wear protective gloves/protective clothing/eye protection/face protection
P284	In case of inadequate ventilation wear respiratory protection
P302 + P352	IF ON SKIN: Wash with plenty of water and soap
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
P308 + P313	If exposed or concerned: Get medical advice
P312	Call a poison center immediately if you feel unwell
P321	Specific treatment (see section 4 on this label)
P333 + P313	If skin irritation or rash occurs: Get medical advice
P337 + P313	If eye irritation persists: Get medical advice/attention
P342 + P311	If experiencing respiratory symptoms: Call a doctor
P362 + P364	Take off contaminated clothing and wash before reuse
P403 + P233	Store in a well-ventilated place. Keep container tightly closed
P405	Store locked up
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 : Indicating Molecular Sieve

Common name : Zeolite, synthetic, indicating

Numbers of identity : CAS-Nr.: 1344-00-9 (>99.7%) (Sodium Aluminosilicate)
: CAS-Nr.: 7646-79-9 (<0.3%) (Cobalt Dichloride)
: EC-No.:231-589-4

Cobalt dichloride is included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)

Impurities : None

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. Never give anything by mouth to an unconscious person.

If ingested

Give several glasses of water to drink to dilute. If large amounts are ingested, get medical advice.

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. If breathing is difficult, get medical attention.

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

Suitable extinguishing media : Any media suitable for the surrounding fire.

5.2 Special hazards arising from the substance or mixture

Fire hazards : None known

Explosion hazards : None known

5.3 Advice for firefighters

Follow standard firefighting procedures.

5.4 Further information

No data available.

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. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface. Dispose of material according to local and regional requirements. Water used to clean contaminated surfaces may be allowed to evacuate through the sanitary system.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breathe dust. Containers of this material may be hazardous when empty since they retain product residues (e.g. dust, solids). 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	CAS-No.	Value	Control Parameters	Basis
Cobalt dichloride	7646-79-9	TWA	0.020000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
Remark(s)			Pulmonary function Asthma Myocardial effects	

	Confirmed animal carcinogen with unknown relevance to humans varies
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8.2 Appropriate engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. 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 respirator or equivalent.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	: Solid, sphere
Color	: Blue--Tan
Odor	: Odorless
Odor threshold	: No data available
pH-value	: 5.5 – 9.0 (in 5% slurry)
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	: 2.1 (Water = 1)
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

10.1 Reactivity

Hygroscopic. Reacts with water to evolve heat.

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 the exposure to heat.

10.4 Conditions to avoid

Moisture, extreme heat, and incompatibilities.

10.5 Incompatible materials

Prevent unintentional contact with water or moisture.

10.6 Hazardous decomposition products

No data available.

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

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 : 2B – Group 2B: Possibly carcinogenic to humans (Cobalt Dichloride)

Reproductive toxicity

No data available

Specific target organ toxicity following single exposure

No data available

Specific target organ toxicity following repeated exposure

No data available



Aspiration hazard

Dust may irritate lungs.

11.2 Information on likely routes of exposure

Absorbed through skin, eye contact, inhalation, and ingestion.

11.3 Additional information

Exposure to dust particles may cause irritation of the respiratory tract. May be slightly hazardous in case of skin contact, ingestion, or inhalation. May cause skin irritation. Dust may cause eye irritation. This product evolves heat as it adsorbs water. Burns to moist or wet skin tissue may result if contact is prolonged.

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

The following components are subject to reporting levels established by SARA Title III, Section 313.

Cobalt dichloride

CAS-No.: 7646-79-9

Revision date: 2009-07-17

SARA 311/312 Hazards

Chronic 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 4A, 13X

CAS-No.: not available

Revision date: not available

Cobalt dichloride



CAS-No.: 7646-79-9
Revision date: 2009-07-17

New Jersey Right to Know Components

Molecular Sieve 4A, 13X
CAS-No.: not available
Revision date: not available

Cobalt dichloride
CAS-No.: 7646-79-9
Revision date: 2009-07-17

California Proposition 65 Components

This product does not contain any chemicals on the Proposition 65 List.

DOT Classification

Not a DOT controlled material (United States)

15.2 Other classifications

HMIS (U.S.A.)

Health hazard : 2
Fire hazard : 0
Reactivity : 0
Personal protection : E

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

Health : 2
Flammability : 0
Reactivity : 0

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 : June 6, 2015
Revision Number : 4
Revision Date : June 9, 2016
Revised By : KT
Approved By : BW

16.2 Warranty

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