



1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product Name : aSORB
Synonym : Aluminum Oxide, hydrate; Activated Alumina

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
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)

Not a hazardous substance or mixture. No need for classification under GHS.

2.2 GHS label elements, including precautionary statements

Not a hazardous substance or mixture. No need for classification under GHS.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No other specific dangers known at this time, if properly stored and handled pursuant to these instructions and industry standards.

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Emergency Overview

CAUTION: May be harmful if inhaled. May cause difficulty breathing. Inhalation of dust may result in respiratory irritation. Prolonged and repeated exposure of dust may cause lung damage. Contact with the eyes or skin may cause mechanical irritation. Avoid inhalation of dusts. Avoid contact with the skin, eyes and clothing.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical identity : Al_2O_3
Common name : Activated Alumina
Numbers of identity : CAS-Nr.: 1344-28-1
: EC-No.: 215-691-6



4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Remove contaminated clothing. Consult a qualified medical professional. Show this data sheet to the doctor in attendance.

If ingested

Not a hazard under normal use conditions. If large amounts are ingested, get medical advice.

Skin contact

Wash with soap and water. Get medical attention if irritation persists.

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. Aid in breathing, if necessary, and get immediate 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

Note to physician Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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 fire fighting procedures.

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

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.



6.3 Methods and materials for containment and cleaning up

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Vacuuming may be used to avoid dust dispersal. 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. Avoid dust formation. Avoid breathing dust.

7.2 Conditions for safe storage, including any incompatibilities

Segregate from reducing agents.

Suitable materials for containers: carbon steel (iron), Low density polyethylene (LDPE), High density polyethylene (HDPE).

Suitable for any general chemical storage area. Do not store in areas where temperatures may exceed 35 °C

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

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

OSHA PEL

Activated Alumina	: 5 mg/m ³ (Inhalation Respirable) (TWA)
Activated Alumina	: 15 mg/m ³ (TWA)
Activated Alumina	: 1 mg/m ³ (TLV)

Lower respiratory tract irritation.

Pneumoconiosis.

Neurotoxicity.

Not classifiable as a human carcinogen

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
Color	: Off-white
Odor	: Odorless
Odor threshold	: No data available
pH-value	: 9.4 – 10.1 (in 5% slurry)
Melting point	: No data available
Freezing Point	: No data available
Initial boiling point	: 2050 °C
Flash point	: No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: Non-flammable
Explosion limits	: No data available
Vapor pressure	: Not applicable
Vapor density	: Not applicable
Relative density	: No data available
Solubility	: Insoluble
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

Moisture (adsorbs water with evolution of 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

None known.

10.4 Conditions to avoid

Avoid deposition of dust and dust formation.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

None anticipated.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effect

Primary routes of exposure Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases. Acute Toxicity/Effects Acute toxicity Assessment of acute toxicity: Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Virtually nontoxic after a single ingestion.

Oral

Information on: Aluminum oxide

Type of value : LD50

Species : Rat

Value : > 10,000 mg/kg (similar to OECD guideline 401)

The data refer to a preparation of the substance.

No mortality was observed.

No systemic toxicity.

Inhalation

Information on : Aluminum oxide

Type of value : LC50

Species : Rat

Value : > 2.3 mg/l (similar to OECD guideline 403)

Exposure time : 4 hours

Tested as dust aerosol.

No mortality was observed.

Irritation / corrosion

Assessment of irritating effects: Inhalation of dust may cause respiratory tract irritation, coughing and breathing difficulties. Contact with the eyes or skin may cause mechanical irritation.

Chronic Toxicity/Effects

Other Information

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components. The product has been assessed on the basis of the



components' available data. To some extent data gaps exist for individual components. According to our present knowledge and experience dangers which are not covered by the current labeling are not to be expected.

Symptoms of Exposure

No significant reaction of the human body to the product known.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish Information on: Aluminum oxide

LC50 (96 h) > 218.64 mg/l, Pimephales promelas (Fish test acute, semistatic) The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Tested above maximum solubility.

Aquatic invertebrates Information on: Aluminum oxide

No observed effect concentration (48 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Tested above maximum solubility. The details of the toxic effect relate to the nominal concentration.

Aquatic plants

Information on: Aluminum oxide

No observed effect concentration (72 h) > 100 mg/l (growth rate), Selenastrum capricornutum (OECD Guideline 201, static)

Tested above maximum solubility. The details of the toxic effect relate to the nominal concentration.

Chronic toxicity to fish

Information on: Aluminum oxide

EC10 (7 d) 0.0938 mg/l, Pimephales promelas (semistatic)

Chronic toxicity to aquatic invertebrates

Information on: Aluminum oxide

No observed effect concentration (21 d) 0.076 mg/l, Daphnia magna (OECD Guideline 211, semistatic)

The statement of the toxic effect relates to the analytically determined concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

12.2 Persistence and degradability

Assessment biodegradation and elimination (H2O) Not applicable for inorganic substances.

Additional information

Other ecotoxicological advice: The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components. The product has been



assessed on the basis of the components' available data. To some extent data gaps exist for individual components. According to our present knowledge and experience dangers which are not covered by the current labeling are not to be expected.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product:

Dispose of in accordance with federal, state, and local environmental control regulations. All waste materials should be review to determine applicable hazards.

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 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.

Aluminum oxide

CAS-No.: 1344-28-1

Revision date: 1994-04-01

Massachusetts Right to Know Components

Aluminum oxide



CAS-No.: 1344-28-1
Revision date: 1994-04-01

Pennsylvania Right to Know Components

Aluminum oxide
CAS-No.: 1344-28-1
Revision date: 1994-04-01

New Jersey Right to Know Components

Aluminum oxide
CAS-No.: 1344-28-1
Revision date: 1994-04-01

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.

Toxic Control Substances Act (TSCA)

TSCA (U.S.A.) released / listed.

15.2 Other classifications

HMIS (U.S.A.)

Health hazard : 1
Fire hazard : 0
Reactivity : 0

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

Health : 1
Flammability : 0
Reactivity : 0

WHMIS (Canada)

Class D, Division 2, Subdivision B

16. OTHER INFORMATION

16.1 Preparation date:

June 1, 2015

Revision date:

June 29, 2017

Revision Number:

1

16.2 Warranty

The information contained herein is based upon data considered true and accurate. However, Interra Global Corp. makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or the results to be obtained from the use thereof. This information is offered solely for the user's consideration, investigation and verification. Since the



use and conditions of this information and the material described herein are not within the control of Interra Global Corp., it assumes no responsibility for injury to the user or third persons. The material described herein is sold only pursuant to Interra's Terms and Conditions of Sale, including those limiting warranties and remedies contained therein. It is the responsibility of the user to determine whether any use of this data and information is in accordance with applicable federal, state or local laws and regulations.