

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200)

Revision date 03-Oct-2023 Revision Number 15

Product identifier

Product Name CALCINED ALUMINA and POLISHING ALUMINA

Other means of identification

Product Code(s) 387

Synonyms A-Aluminas, AB-Aluminas, CL-Aluminas, CT-Aluminas, CTC-Aluminas, E-SY 1000, Flux

Grade, Fusion Grade, Gilox, GMA, HVA, IS-Aluminas, LS-Aluminas, MPC, P-Aluminas, PSG, RAPOL, RG-Aluminas, Refractory Grade, SC-Aluminas, Special Grade, ThermaFill, Ultimate P, WRA. Exception: CTC55 - see Material Safety Data Sheet 1000. Exception:

CT3000 SDP - see Material Safety Data Sheet 1259.

Recommended use of the chemical and restrictions on use

Recommended use Adsorbents, Filler, Polishing agent, Refractory, Ceramic

Restrictions on use No information available

Details of the supplier of the safety data sheet

Supplier Address

Almatis, Inc. P.O. Box 300 4701 Alcoa Road Bauxite, AR 72022

USA

Telephone: +1 501-776-4677

Emergency telephone number

Emergency Telephone 3E Global Incident Response Hotline (Almatis access code: 334735)

US:+1 760 476 3960

Classification

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Hazard statements

Precautionary Statements - Prevention

Not applicable

Precautionary Statements - Response

Not applicable

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Other information

No information available.

Substance

Common name Alumina.

Synonyms A-Aluminas, AB-Aluminas, CL-Aluminas, CT-Aluminas, CT-Aluminas, E-SY 1000, Flux

Grade, Fusion Grade, Gilox, GMA, HVA, IS-Aluminas, LS-Aluminas, MPC, P-Aluminas, PSG, RAPOL, RG-Aluminas, Refractory Grade, SC-Aluminas, Special Grade, ThermaFill, Ultimate P, WRA. Exception: CTC55 - see Material Safety Data Sheet 1000. Exception:

CT3000 SDP - see Material Safety Data Sheet 1259.

| Chemical name | CAS No | Weight-% | Trade secret |
|----------------|-----------|----------|--------------|
| Aluminum oxide | 1344-28-1 | >99 | - |

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact Wash skin with soap and water.

Ingestion Rinse mouth.

Most important symptoms and effects, both acute and delayed

Symptoms Contact with dust can cause mechanical irritation or drying of the skin.

Effects of Exposure No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media No information available.

Specific hazards arising from the No information available.

chemical

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

Reference to other sections Personal protective equipment [PPE]. Disposal. Advices on safe handling.

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

Control parameters

Exposure Limits

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH |
|----------------|-------------------------|-------------------------------------|-------|
| Aluminum oxide | TWA: 1 mg/m³ respirable | TWA: 15 mg/m³ total dust | - |
| 1344-28-1 | particulate matter | TWA: 5 mg/m ³ respirable | |
| | | fraction | |
| | | (vacated) TWA: 10 mg/m³ total | |
| | | dust | |
| | | (vacated) TWA: 5 mg/m ³ | |
| | | respirable fraction | |

Appropriate engineering controls

Engineering controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Wear suitable protective clothing. Skin and body protection

No protective equipment is needed under normal use conditions. If exposure limits are Respiratory protection

exceeded or irritation is experienced, ventilation and evacuation may be required.

Not applicable

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Information on basic physical and chemical properties

Physical state Solid

white Powder **Appearance**

Color white

Odor No information available **Odor threshold** No information available

Property Remarks • Method Values

Not applicable pН pH (as aqueous solution) None known

Melting point / freezing point 2000 °C / 3632 °F Literary reference Initial boiling point and boiling rangeNo data available None known - / °F Not applicable Flash point **Evaporation rate** Not applicable No data available **Flammability** No data available Not applicable

Flammability Limit in Air Upper flammability or explosive

limits

Lower flammability or explosive

limits

No data available Vapor pressure None known Relative vapor density No data available Not applicable Relative density No data available Not applicable

Water solubility No data available insoluble

Solubility(ies) insoluble

Partition coefficient No data available Not applicable **Autoignition temperature** No data available None known None known **Decomposition temperature** No data available Not applicable

Kinematic viscosity No data available Not applicable **Dynamic viscosity**

Other information

Explosive properties No information available Oxidizing properties No information available Softening point No information available

Molecular weight 101.96 **VOC** content None

2.7-3.94 g/cm3 **Liquid Density** 350-1250 kg/m3 **Bulk density**

None under normal use conditions. None under normal processing. Reactivity

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Hazardous polymerization does not occur. Hazardous polymerization

Conditions to avoid None known based on information supplied.

Incompatible materialsNone known based on information supplied.

Hazardous decomposition products None known based on information supplied.

Information on likely routes of exposure

Inhalation May cause irritation.

Eye contact Dust contact with the eyes can lead to mechanical irritation.

Skin contact No known hazard in contact with skin.

Ingestion No known effect based on information supplied.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity .

Numerical measures of toxicity

No information available

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|----------------|--------------------|-------------|-----------------|
| Aluminum oxide | > 5000 mg/kg (Rat) | - | - |
| 1344-28-1 | | | |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Other adverse effects No information available.

Interactive effects No information available.

Ecotoxicity Not considered to be harmful to aquatic life.

Persistence and degradability Not readily biodegradable.

Bioaccumulation There is no data for this product.

Mobility No information available.

Other adverse effects No information available.

Disposal methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO (air) Not regulated

IATA Not regulated

IMDG Not regulated

International Inventories

TSCA Complies.

DSL/NDSL Listed on DSL. Not Listed on NDSL.

EINECS/ELINCS Complies.
ENCS Complies.
IECSC Complies.
KECL Complies.
PICCS Complies.

AIIC Complies.

NZIoC Contact supplier for inventory compliance status.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Chemical name | SARA 313 - Threshold Values % | | | |
|----------------------------|-------------------------------|--|--|--|
| Aluminum oxide - 1344-28-1 | 1.0 | | | |

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|----------------|------------|---------------|--------------|
| Aluminum oxide | X | X | X |
| 1344-28-1 | | | |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

| NFPA | Health hazards 0 |) | Flammability 0 |) | Instability 0 | Special hazards - |
|-------|------------------|---|----------------|---|--------------------|-----------------------|
| HMIS_ | Health hazards 0 |) | Flammability 0 |) | Physical hazards 0 | Personal protection X |

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value * Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Prepared By Product Safety Department

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Disclaimer

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End of Safety Data Sheet

US SDS version information - AGHS

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