

Safety Data Sheet

DD431 1/4"

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(30500462/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

DD431 1/4"

Recommended use of the chemical and restriction on use

Recommended use*: Adsorbent for the chemical industry

Recommended use*: Industrial catalyst

Unsuitable for use: Not intended for sale to or use by the general public.

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION

100 Park Avenue

Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: metal oxides

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

No need for classification according to GHS criteria for this product.

Label elements

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The product does not require a hazard warning label in accordance with GHS criteria.

Hazards not otherwise classified

No applicable information available.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Aluminum oxide

CAS Number: 1344-28-1

Content (W/W): 80.0 - < 100.0%

Synonym: Aluminium oxide; Alumina

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

If on skin:

Wash thoroughly with soap and water

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:

Rinse mouth and then drink 200-300 ml of water.

Most important symptoms and effects, both acute and delayed

Symptoms: coughing, respiratory disorders

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, foam, dry powder

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Additional information:

Use extinguishing measures to suit surroundings.

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

No particular hazards known.

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Do not breathe dust. Avoid contact with the skin, eyes and clothing. Use personal protective clothing. Information regarding personal protective measures, see section 8.

Environmental precautions

Discharge into the environment must be avoided.

Methods and material for containment and cleaning up

Avoid raising dust. Dampen, pick up mechanically and dispose of. Dispose of absorbed material in accordance with regulations. Reclaim for processing if possible.

7. Handling and Storage

Precautions for safe handling

Avoid dust formation. Avoid inhalation of dusts. Avoid contact with the skin, eyes and clothing. Wear suitable protective clothing and gloves. Provide suitable exhaust ventilation at the processing machines. Ensure adequate ventilation. Keep container tightly closed.

Protection against fire and explosion:

The product is not an oxidizer, not self-combustible and not explosive. The substance/product is non-combustible.

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)

Further information on storage conditions: Containers should be stored tightly sealed in a dry place.

Storage stability:

Keep container dry.

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8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Aluminum oxide	ACGIH, US:	TWA value 1 mg/m3 Respirable fraction ;
	OSHA Z1:	PEL 5 mg/m3 Respirable fraction ;
	OSHA Z1:	PEL 15 mg/m3 Total dust ;
	ACGIH, US:	TWA value 10 mg/m3 Inhalable particles ;
	ACGIH, US:	TWA value 3 mg/m3 Respirable particles ;

Advice on system design:

Provide local exhaust ventilation to maintain recommended P.E.L. Ensure adequate ventilation.

Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. Wear appropriate certified respirator when exposure limits may be exceeded. Wear a NIOSH-certified (or equivalent) particulate respirator.

Observe OSHA regulations for respirator use (29 CFR 1910.134).

Hand protection:

Wear chemical resistant protective gloves.

Eye protection:

Safety glasses with side-shields.

Body protection:

No body protection required if used for intended purpose and satisfying generally accepted industrial hygiene rules.

General safety and hygiene measures:

Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	The form is derived from the trade name., solid
Odour:	odourless
Odour threshold:	not applicable, odour not perceivable
Colour:	off-white
pH value:	9.4 - 10.1
Melting point:	2,050 °C
Freezing point:	No data available.
Boiling point:	2,977 °C (1,013 hPa) Literature data.
Boiling range:	No data available.
Flash point:	not applicable, the product is a solid
Flammability:	Not a flammable solid according to UN transport regulations division 4.1 and GHS chapter 2.7. The product is not combustible.
Lower explosion limit:	For solids not relevant for classification and labelling.

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Upper explosion limit:	For solids not relevant for classification and labelling.
SADT:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.
Vapour pressure:	(20 °C) negligible
Bulk density:	38.0 - 52 lb/ft3 (68 °F)
Vapour density:	The product is a non-volatile solid.
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures
Self-ignition temperature:	not self-igniting
Thermal decomposition:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1. No decomposition if correctly stored and handled.
Viscosity, dynamic:	not applicable, the product is a solid
Solubility in water:	not soluble
Miscibility with water:	not soluble
Evaporation rate:	The product is a non-volatile solid.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:

Not an oxidizer.

Reactions with water/air:	Reaction with:	water
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Flammable gases:	no
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Toxic gases:	no
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Chemical stability

The product is chemically stable.

Peroxides:	The product does not contain peroxides. The product/the substance has not a tendency towards the formation of peroxide.
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Possibility of hazardous reactions

The product is stable if stored and handled as prescribed/indicated.

No hazardous reactions when stored and handled according to instructions.

Conditions to avoid

Avoid dust formation. Avoid deposition of dust.

Incompatible materials

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products known.

Thermal decomposition:

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Not a substance liable to self-decomposition according to UN transport regulations, class 4.1. No decomposition if correctly stored and handled.

11. Toxicological information

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: Not expected to be acutely toxic. The product has not been tested. The statement has been derived from the properties of the individual components.

Oral

Type of value: ATE

Value: > 5,000 mg/kg

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

Type of value: ATE

Value: > 2.3 mg/l

Exposure time: 4 h

Determined for dust

Information on: Aluminum oxide

Type of value: LC50

Species: rat

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

Exposure time: 4 h

Tested as dust aerosol.

No mortality was observed.

Dermal

Information on: Aluminum oxide

No data available.

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation / corrosion

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Assessment of irritating effects: Based on available data, the classification criteria are not met. Contact with the eyes or skin may cause mechanical irritation. The product has not been tested. The statement has been derived from the properties of the individual components.

Skin

Information on: Aluminum oxide

Species: rabbit

Result: non-irritant

Method: similar to OECD guideline 404

Eye

Information on: Aluminum oxide

Species: rabbit

Result: non-irritant

Method: similar to OECD guideline 405

Sensitization

Assessment of sensitization: Based on available data, the classification criteria are not met.

Information on: Aluminum oxide

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Based on available data, the classification criteria are not met.

Information on: Aluminum oxide

Assessment of repeated dose toxicity: Repeated inhalative uptake of the substance did not cause substance-related effects.

Genetic toxicity

Assessment of mutagenicity: Based on available data, the classification criteria are not met.

Information on: Aluminum oxide

Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not genotoxic in a test with mammals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity: Based on available data, the classification criteria are not met.

Information on: Aluminum oxide

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Assessment of carcinogenicity: In long-term animal studies in which the substance was given by inhalation, a carcinogenic effect was not observed.

Reproductive toxicity

Assessment of reproduction toxicity: Based on available data, the classification criteria are not met.

Information on: Aluminum oxide

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Teratogenicity

Assessment of teratogenicity: Based on available data, the classification criteria are not met.

Information on: Aluminum oxide

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Other Information

The product has not been tested. The statement has 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.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. Based on long-term (chronic) toxicity study data, the product is very likely not harmful to aquatic organisms.

Toxicity to fish

Information on: Aluminum oxide

LC50 (96 h) 0,078 - 281,6 mg Al/L, various species (other, other)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The LC50 is higher than the solubility limit.

Aquatic invertebrates

Information on: Aluminum oxide

EC50 (48 h) 0,07 - > 99,6 mg Al/L, other (other)

The EC50 is higher than the solubility limit. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic plants

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Information on: Aluminum oxide

EC50 (72 h) 0,024 - 4.93 mg Al/L (growth rate), algae (other, static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The EC50 is higher than the solubility limit.

EC10 (72 h) 0,051 - 3,15 mg Al/L (growth rate), algae (other, static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. No toxic effects occur within the range of solubility.

Chronic toxicity to fish

Information on: Aluminum oxide

EC10 (30 d) 0,078 - 5,19 mg Al/L, Fish (other, other)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. No toxic effects occur within the range of solubility.

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.

No observed effect concentration (21 d) 0,076 - 4,9 mg Al/L, aquatic crustacea (other, other)

No toxic effects occur within the range of solubility. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Literature data.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

Information on: Aluminum oxide

OECD Guideline 209 aquatic

activated sludge, domestic/EC10 (3 h): > 200 mg Al/L

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Not applicable for inorganic substances.

Bioaccumulative potential

Assessment bioaccumulation potential

Significant accumulation in organisms is not to be expected.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment bioaccumulation potential

Information on: Aluminum oxide

Significant accumulation in organisms is not to be expected.

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Mobility in soil

Assessment transport between environmental compartments

Adsorption to solid soil phase is possible.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: Aluminum oxide

The substance will not evaporate into the atmosphere from the water surface.

No data available.

Study scientifically not justified.

Additional information

Other ecotoxicological advice:

The product has not been tested. The statement has 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

Waste disposal of substance:

Dispose of in accordance with local authority regulations. Disposal requirements are dependent on the hazard classification and will vary by location and the type of disposal selected. All waste materials should be reviewed to determine the applicable hazards (testing may be necessary). Used catalysts may have different hazardous properties than the original products.

Container disposal:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

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Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

State regulations

State RTK

PA

MA

NJ

CAS Number

1344-28-1

1344-28-1

1344-28-1

Chemical name

Aluminum oxide

Aluminum oxide

Aluminum oxide

NFPA Hazard codes:

Health: 1

Fire: 0

Reactivity: 0

Special:

HMIS III rating

Health: 1

Flammability: 0

Physical hazard: 0

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2022/01/19

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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