1. Identification

Product identifier used on the label

DD831 3/16"

Recommended use of the chemical and restriction on use

Recommended use*: Industrial catalyst

* The “Recommended use” identified for this product is provided solely to comply with a US 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

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: metal oxides

2. Hazards Identification


Classification of the product

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

Label elements

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

Hazards not otherwise classified
No specific dangers known, if the regulations/notes for storage and handling are considered.


**Emergency overview**

CAUTION:
Contains an IARC Group 2B carcinogen - possibly carcinogenic to humans.
PROLONGED OR REPEATED EXPOSURE MAY CAUSE LUNG DAMAGE.
INGESTION MAY CAUSE GASTRIC DISTURBANCES.
Contact with powders or dusts may irritate the eyes, skin and respiratory tract.
Avoid inhalation of dusts.

3. **Composition / Information on Ingredients**


This product does not contain any components classified as hazardous under the referenced regulation.


<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Content (W/W)</th>
<th>Chemical name</th>
</tr>
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<tr>
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<td>80.0 - 91.0 %</td>
<td>Aluminum oxide</td>
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<tr>
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4. **First-Aid Measures**

**Description of first aid measures**

**General advice:**
Remove contaminated clothing.

**If inhaled:**
Keep patient calm, remove to fresh air. If necessary, give oxygen. If not breathing, give artificial respiration. Seek medical attention if necessary.

**If on skin:**
After contact with skin, wash immediately with plenty of water and soap. Consult a doctor if skin irritation persists.

**If in eyes:**
In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

**If swallowed:**
No hazards anticipated. If large quantities are ingested, seek medical advice.
Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

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
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:
Wear self-contained breathing apparatus and chemical-protective clothing.

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. Vacuum up spilled product. Place into suitable container for disposal.

7. Handling and Storage

Precautions for safe handling
Avoid raising dust. Avoid contact with skin and eyes. Ensure adequate ventilation.

Protection against fire and explosion:
The product is neither self-ignitable, nor an explosion hazard, nor does it promote fires.

Conditions for safe storage, including any incompatibilities
Segregate from flammable substances.

Suitable materials for containers: Stainless steel, Low density polyethylene (LDPE), High density polyethylene (HDPE)

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place.

Storage stability:
Keep container dry.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
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<tr>
<td>Aluminum Oxide (NON-FIBROUS)</td>
<td>PEL 5 mg/m3 Respirable fraction ; PEL 15 mg/m3 Total dust ; TWA value 10 mg/m3 Total dust ; TWA value 5 mg/m3 Respirable fraction ;</td>
<td>TWA value 1 mg/m3 Respirable fraction ;</td>
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<td>Metal oxide</td>
<td>OSHA PEL 15 mg/m3 Total dust ;</td>
<td>ACGIH TLV TWA value 10 mg/m3  ;</td>
</tr>
</tbody>
</table>

Advice on system design:
Ensure adequate ventilation. Provide local exhaust ventilation to maintain recommended P.E.L.

Personal protective equipment

Respiratory protection:
Wear a NIOSH-certified (or equivalent) particulate respirator.

Hand protection:
Wear chemical resistant protective gloves.

Eye protection:
Safety glasses with side-shields.

General safety and hygiene measures:
Do not eat, drink or use tobacco while working.

9. Physical and Chemical Properties

Form: spheres
Odour: odourless
Odour threshold: not applicable
Colour: white
pH value: not applicable
Boiling point: not relevant
Flash point: not applicable
Flammability: not flammable
Lower explosion limit: not applicable
Upper explosion limit: not applicable
Vapour pressure: not applicable
Bulk density: 704 - 768 kg/m3 (20 °C)
Vapour density: not applicable
10. Stability and Reactivity

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

Corrosion to metals:
No corrosive effect on metal.

Oxidizing properties:
not fire-propagating

Chemical stability
The product is chemically stable.

Possibility of hazardous reactions
The product is stable if stored and handled as prescribed/indicated.

Conditions to avoid
Avoid dust formation. Avoid deposition of dust.

Incompatible materials
Sodium nitrate, vinyl acetate, zinc, Aluminum, oxidizing agents, epoxide, acids, alkali metals

Hazardous decomposition products

Decomposition products:
Possible thermal decomposition products: No hazardous decomposition products known.

Thermal decomposition:
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: Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Ingestion may cause gastrointestinal disturbances. The product has not been tested. The statement has been derived from the properties of the individual components.
Information on: Aluminum oxide (Al₂O₃), hydrate
Assessment of acute toxicity: Virtually nontoxic after a single ingestion.

Information on: Metal oxide
Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Inhalation

Information on: Titanium dioxide
Type of value: LC50
Species: rat
Value: > 6.82 mg/l (other)
Exposure time: 4 h
Tested as dust aerosol.
No mortality was observed.

Irritation / corrosion
Assessment of irritating effects: Contact with powders or dusts may irritate the eyes, skin and respiratory tract. The product has not been tested. The statement has been derived from the properties of the individual components.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: Prolonged or repeated exposure may cause pulmonary problems.

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

Carcinogenicity

Information on: Titanium dioxide
Assessment of carcinogenicity: IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term studies in rats in which the substance was given by inhalation, a carcinogenic effect was observed. Tumors were only observed in rats after chronic inhalative exposure to high concentrations which caused sustained lung inflammation. In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. Dermal exposure is not expected to be carcinogenic.

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.

Symptoms of Exposure
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

12. Ecological Information

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

Waste disposal of substance:
Dispose of in accordance with local authority regulations. Check for possible recycling. 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).

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

Federal Regulations
Registration status:
Chemical TSCA, US released / listed

EPCRA 313:
CAS Number Chemical name
1344-28-1 Aluminum oxide

State regulations
State RTK CAS Number Chemical name
Safety Data Sheet
DD831 3/16"

Revision date: 2014/12/05

Version: 4.0

MA, NJ, PA 1344-28-1 Aluminum oxide
MA, NJ, PA 13463-67-7 Titanium dioxide

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: 2014/12/05

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