

Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 16.09.2011

Version: 4.0

Product: **DD431 1/4"**

(ID no. 30500462/SDS_GEN_EU/EN)

Date of print 17.09.2011

1. Identification of the substance/mixture and of the company/undertaking

Product identifier

DD431 1/4"

Chemical name: aluminium oxide

CAS Number: 1344-28-1

REACH registration number: 01-2119529248-35-0027, 01-2119529248-35-0028,
01-2119529248-35-0038

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

Relevant identified uses: Adsorbent for the chemical industry

Details of the supplier of the safety data sheet

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Catalysts

Telephone: +49 621 60-42527

E-mail address: product-safety-catalysts@basf.com

Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

2. Hazards Identification

Label elements

According to Regulation (EC) No 1272/2008 [CLP]

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| Globally Harmonized System, EU (GHS)

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

According to Directive 67/548/EEC or 1999/45/EC

Directive 1999/45/EC ('Preparation Directive')

The product does not require a hazard warning label in accordance with EC Directives.

Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

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

According to Directive 67/548/EEC or 1999/45/EC

Possible Hazards:

The product does not require a hazard warning label in accordance with EC Directives.

Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

Other Hazards (GHS):

No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition/Information on Ingredients

Substances

Chemical nature

aluminium oxide (Content (W/W): $\geq 82\%$ - $\leq 94\%$)

CAS Number: 1344-28-1

EC-Number: 215-691-6

Water (Content (W/W): $\geq 6\%$ - $\leq 16\%$)

CAS Number: 7732-18-5

EC-Number: 231-791-2

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

No particular hazards known.

4. First-Aid Measures

Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

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

On ingestion:

Rinse mouth and then drink plenty of water.

Most important symptoms and effects, both acute and delayed

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

Indication of any immediate medical attention and special treatment needed

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

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
carbon dioxide, foam, dry powder, water spray

Special hazards arising from the substance or mixture

No particular hazards known.

Advice for fire-fighters

Special protective equipment:
Wear a self-contained breathing apparatus.

Further information:

Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid contact with the skin, eyes and clothing. Use personal protective clothing. Information regarding personal protective measures see, chapter 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.

Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage**Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

The product does not contribute to the spreading of flames, nor is it self combustible, not explosive.

Conditions for safe storage, including any incompatibilities

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

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

Storage stability:

Storage temperature: ≤ 35 °C

Keep container dry.

Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection**Control parameters**Components with workplace control parameters

The nuisance dust limit value is to be kept.

1344-28-1: aluminium oxide

PNEC

freshwater: 0.0749 mg/l

STP: 20 mg/l

DNEL

No DNEL value available.

Exposure controlsPersonal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. Particle filter with low efficiency for solid particles (e.g. EN 143 or 149, Type P1 or FFP1)

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact
(Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

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

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form:	The form is derived from the trade name.
Colour:	off-white
Odour:	odourless
Odour threshold:	not applicable
pH value:	9.4 - 10.1
Melting point:	2,050 °C
Boiling point:	not determined
Flash point:	Non-flammable.
Evaporation rate:	not applicable
Flammability:	does not ignite
Lower explosion limit:	not applicable
Upper explosion limit:	not applicable
Ignition temperature:	not applicable
Vapour pressure:	not applicable
Solubility in water:	insoluble
Partitioning coefficient n-octanol/water (log Kow):	The value has not been determined because the substance is inorganic.
Self ignition:	not self-igniting
Thermal decomposition:	No decomposition if used correctly.
Viscosity, dynamic:	not applicable
Explosion hazard:	not explosive
Fire promoting properties:	not fire-propagating

Other information

Self heating ability:	It is not a substance capable of spontaneous heating.
Bulk density:	approx. 650 kg/m ³
pKA:	not soluble
Surface tension:	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.	
Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.

Chemical stability

The product is chemically stable.

Possibility of hazardous reactions

No hazardous reactions known.

The product is chemically stable.

Conditions to avoid

Avoid deposition of dust. Avoid dust formation.

Incompatible materials

Substances to avoid:
water, reducing agents

Hazardous decomposition products

Hazardous decomposition products:
No hazardous decomposition products known.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Virtually nontoxic after a single ingestion.

Experimental/calculated data:

LD50 rat (oral): > 5,000 mg/kg (OECD Guideline 401)

LC50 rat (by inhalation): > 2.3 mg/l 4 h (OECD Guideline 403)
Tested as dust aerosol.

(dermal): Study scientifically not justified.

Irritation

Assessment of irritating effects:
Not irritating to the skin. Not irritating to the eyes.

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:
No sensitizing effect.

Experimental/calculated data:
guinea pig: Non-sensitizing.

Germ cell mutagenicity

Assessment of mutagenicity:
The substance was not mutagenic in bacteria.

Carcinogenicity

Assessment of carcinogenicity:
The whole of the information available provides no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:
The results of animal studies suggest a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:
No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Specific target organ toxicity (single exposure)

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

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

No adverse effects were observed after repeated exposure in animal studies.

Aspiration hazard

No aspiration hazard expected.

Other relevant toxicity information

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

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.
No toxic effects occur within the range of solubility.

Toxicity to fish:

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 products of a similar structure or composition. Tested above maximum solubility.

Aquatic invertebrates:

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:

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.

Microorganisms/Effect on activated sludge:

Study scientifically not justified.

Chronic toxicity to fish:

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

Chronic toxicity to aquatic invertebrates:

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 products of a similar structure or composition.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Inorganic product which cannot be eliminated from water by biological purification processes.

Bioaccumulative potential

Assessment bioaccumulation potential:
Significant accumulation in organisms is not to be expected.

Mobility in soil (and other compartments if available)

Assessment transport between environmental compartments:
Adsorption to solid soil phase is not expected.

Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): Not applicable for inorganic substances.

Additional information

Other ecotoxicological advice:
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 treatment methods

Observe national and local legal requirements.
Contact specialized companies about recycling.

Contaminated packaging:
Dispose of in accordance with national, state and local regulations.
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

ADR

Not classified as a dangerous good under transport regulations

RID

Not classified as a dangerous good under transport regulations

Inland waterway transport

ADN

Not classified as a dangerous good under transport regulations

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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

Safety, health and environmental regulations/legislation specific for the substance or mixture

16. Other Information

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.