

Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

BROWNELL
L I M I T E D

Trade Name: Brownell Limited
Product No: Activated Alumina
Version No: MCS/114/MSDS - 02 / EN

Revision Date: 03.01.2017
Print Date: 03.01.2017

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name or designation of the mixture	Activated Alumina
Registered number	Not available
Synonyms Issue	Activated Alumina
Date Version	03 rd January 2017
Number Revision	02
Date Supersedes	08 th April 2011

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

Identifier uses	Desiccant. Adsorbent for the chemical industry
Uses advised against	No other uses are advised

1.3 Details of the supplier of the safety data sheet

Supplier Name	Brownell Limited
Address	Unit 2, Abbey Road Industrial Park, Commercial Way Park Royal London NW10 7XF
Country	UK
Telephone	+44 (0) 208 965 9281
Fax	+44 (0) 208 965 3239
Email	info@brownell.co.uk
Contact	Robert Beasley
Website	www.brownell.co.uk

1.4 Emergency telephone number +44 (0) 20 8838 8408 – (08:00 – 17:00) office hours

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification apply.

Classification according to Regulation (EC) No. 1272/2008 as amended

This substance does not meet the criteria for classification according to the Regulation (EC) 1272/2008 as amended.

Physical hazard	Not classified as a physical hazard.
Human health hazard	Not classified as a health hazard.
Environmental hazard	Not classified as an environmental hazard.

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Addition information Not applicable.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

Product identifier Not applicable

Hazard statements Not applicable

Precautionary statements Not applicable

Supplemental hazard information Not applicable

Special rules for supplemental label elements for certain mixtures Not applicable

Additional labeling Not applicable

2.3 Other hazards

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

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name	Aluminium Oxide >90%
EINECS No	215-691-6
REACH No	-
CAS No	1344-28-1

Purity Not Applicable

Synonyms Aluminium Oxide

Stabilisers Not Applicable

Hazard Impurities Not Applicable

3.2 Mixtures

Additional information Not applicable

SECTION 4: First Aid measures

General information If exposed or concerned, get medical advice/attention. Show this safety data sheet to the doctor in attendance.

4.1 Description of first aid measures

Inhalation If dust from the material is inhaled, remove the affected person immediately from the source of exposure to fresh air, seek medical attention if symptoms develop or persist.

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Skin contact	Wash your skin thoroughly with soap and water, seek medication attention if irritation develops and persists.
Eye Contact	Do not rub eyes. Rinse affected eyes for at least 15 minutes under running water with eyelids held open, seek medical attention if irritation develops and persists.
Ingestion	Rinse out mouth with water thoroughly and then drink plenty of water; seek medical attention if symptoms develop.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat according to symptoms (decontamination, vital functions), provide general supportive measures and treat symptomatically. Keep victim under observation.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use extinguishing media most appropriate for the surrounding fire. (Water, water spray, carbon dioxide, polymer foam and dry chemical powder).

Unsuitable extinguishing media Not applicable and unused material will not burn.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products No particular hazard known.

5.3 Advice for firefighters

Additional information Special protective equipment: wear self-contained breathing apparatus.

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.

SECTION 6: Accidental release measure

6.1 Personal precautions, protective equipment and emergency procedures.

For non-emergency personnel

Protective equipment Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation.

Emergency procedures Keep unnecessary personnel away.

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6.2 Environmental precautions Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

For containment Contain spillage and dispose of adsorbed material in accordance with regulations.

For cleaning up Dampen and sweep up spillage to avoid the generation of dust during clean-up and collect in suitable container for disposal.

6.4 Reference of other sections

Additional information For personal protection, see section 8 of the SDS. For waste disposal, see section 13.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Protective measures

Advice on safe handling Avoid dust formation. Avoid inhalation of dust. Handle in accordance with good industrial hygiene and safety practice.

Fire preventions The product is not an oxidizer, not self-combustible and not explosive.

Aerosol and dust generation preventions Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed.

Environment precautions No special environmental precautions required.

Advice on general occupational hygiene Observe good industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage containers Carbon steel (Iron), Low density polyethylene (LDPE), High density polyethylene (HDPE).

Requirements for storage rooms and vessels All materials must be kept in a tightly sealed container and stored in a cool and dry place.

Hints on storage assembly:

Storage class Not Available

Materials to avoid Not Applicable

7.3 Specific end uses

Recommendations Not available

Specific end uses The specified uses for this material are shown in section 1 of the document.

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SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

8.1.1 Occupational exposure limits:

UK. EH40 Workplace Exposure Limits (WELs)

Substance Name	EC-No.	CAS-No.	Type	Value	Occupational exposure limit value	
					Long Term	Short Term
Aluminium Oxide – Inhalable dust	215-691-6	1344-28-1	TWA	OES 10mg/m ³	8 Hours	-
Aluminium Oxide – Respirable dust	215-691-6	1344-28-1	TWA	OES 4mg/m ³	8 Hours	-

8.1.2 Biological limits values

No biological exposure limits noted for the ingredient(s).

8.1.3 Exposure limits at intended use

Not applicable

8.1.4 DNEL/PNEC-values

PNEC – Freshwater: 0.0749 mg/l, STP: 20 mg/l.
DNEL – Not available

8.1.5 Risk management measures according to used control banding approach

Not applicable

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust) and control of process conditions.

8.2.2 Personal protective equipment

Eye / Face protection:

Suitable eye protection

Wear suitable eye protection (safety glasses with side shields) e.g. EN 166 are recommended.

Skin protection:

Hand protection

Suitable chemical resistant protective gloves e.g. EN 375 are recommended.

Body protection

Wear lab coat over normal work clothing (long sleeved shirts and long pants) is recommended.

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Respiratory protection	Wear suitable respiratory protection equipment, e.g. EN 143, 149, Type P1 or FFP1) are recommended, if dust is foamed in a confined working space.
Thermal hazards	Not available
8.2.3 Environmental exposure controls	Not available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:

Physical state: Solid beads

Colour: White

Odour: Odourless

pH	9.4 – 10.1
Melting Point/	2,030°C
Boiling Point	2,977°C @ 760mmHg
Flash Point	Not Applicable
Evaporation rate	Not available
Flammability (solid, gas)	Non-flammable
Upper/lower flammability or explosive limits	
Upper explosive limits	Not Applicable
Lower explosive limits	Not Applicable
Vapour pressure	Not Applicable
Vapour density	3.97 – 3.99 g/cm ³
Relative density	3.97 – 3.99 g/cm ³
Solubility(ies)	Not applicable (not soluble)
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Viscosity, dynamic	Not available
Viscosity, cinematic	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2 Other information:

Physical hazards

Explosives:	Not available
Flammable gases:	Not applicable
Flammable aerosols:	Not applicable
Oxidising gases:	Not available
Gases under pressure:	Not available

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Flammable liquids:	Not applicable
Flammable solids:	Not applicable
Self-reactive substances and mixtures	Not available
Pyrophoric liquids	Not available
Pyrophoric solids	Not available
Self-heating substances and mixtures	Not applicable
Substances or mixtures which, in contact with water emit flammable gases	Not available
Oxidising liquids	Not available
Oxidising solids	Not available
Organic peroxides	Not available
Metal corrosion	Not available

SECTION 10: Stability and reactivity

10.1 Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2 Chemical stability	Material is stable under normal conditions.
10.3 Possibility of hazardous reactions	No hazardous reaction known under conditions of normal use.
10.4 Conditions to avoid	Avoid deposition of dust. Avoid dust formation.
10.5 Incompatible materials	Substances to avoid: water and reducing agents.
10.6 Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

11.1.1 Substances

Acute toxicity: Animal data

Substance	Effect dose / concentration	Value	Species
Acute oral toxicity	LD50	>10,000mg/kg	Rat
Acute dermal toxicity	LD50	-	-
Acute inhalation	LC50	>2.3mg/1 4h	Rat

Skin corrosion/irritation	No irritation on skin.
Eye damage/irritation	No irritation on eye.

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Sensitisation to the respiratory tract/skin	Non-sensitisation
Germ cell mutagenicity	Not mutagenic
Carcinogenicity	No indication of a carcinogenic effect to human.
Reproductive toxicity	No indication of a fertility impairing effect.
Specific target organ toxicity (single exposure)	No specific target organ toxicity.
Specific target organ toxicity (repeated exposure)	The substance may cause damage to the lung after repeated inhalation of high doses. The product has not been fully tested.
Aspiration hazard	No aspiration hazard expected.

Physical, chemical and toxicological characteristics

In case of ingestion	No data available
In case of skin contact	No data available
In case of inhalation	No data available
In case of eye contact	No data available.

11.1.2 Mixtures No data available

SECTION 12: Ecological information

12.1 Toxicity

Species	Test	Value	Units
Fish	96H LC50	>218.64mg/l	-
Daphnia	48H EC50	>100 mg/l	-
Algae	72H IC50	>100 mg/l	-

12.2 Persistence and degradability Not applicable for inorganic substances.

12.3 Bioaccumulative potential Significant accumulation in organisms in not to be expected.

12.4 Mobility in soil Adsorption in soil: Adsorption to solid phase is not expected.

12.5 Results of PBT and vPvB assessment According to Annex XIII of regulation (EC) 1907/2006 concerning the registration, evaluation, Authorisation and regulation of chemicals (REACH): Not applicable for inorganic substances.

12.6 Other adverse effects The substance is not listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product / packaging disposal	Dispose of as normal industrial waste.
Waste codes / waste designations according to EWC/AVV	This material is not classified as hazardous waste under EEC Directive 91/689/EEC.
Packaging	No data available
Waste treatment options	The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom)
Other disposal recommendations	Dispose of in accordance with national, state and local regulations.

SECTION 14: Transport information

14.1 UN No.	Not classified as dangerous goods under the United Nations Transport Recommendations.
14.2 UN Proper Shipping name	Not applicable.
14.3 Transport hazard class(es) Hazard label(s)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	Not applicable.
14.6 Special precautions for user	Not applicable.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
Land transport (ADR/RID)	Not regarded as dangerous goods
Inland Waterway transport (ADN)	Not regarded as dangerous goods
Sea transport (IMDG)	Not regarded as dangerous goods
Air transport (ICAO-TI / IATA-DGR)	Not regarded as dangerous goods

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SECTION 15: Regulatory information

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

15.1.1 EU regulations

Authorisations: Not applicable

Restrictions on use: Not applicable

Other EU Regulations:

Directive 2010/75/EC on industrial emissions

Not listed

Directive 2004/42/CE on the limitation of emissions of volatile organic compounds

Not listed

Regulation (EC) No. 842/2009 on certain fluorinated greenhouse gases

Not listed

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not Listed

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not Listed

Regulation (EC) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not Listed

Regulation (EC) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not Listed

Regulation (EC) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not Listed

Regulation (EC) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not Listed

15.1.2 National regulations

Not Available

15.2 Chemical safety assessment

Product is not classified as hazardous.

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SECTION 16: Other information

16.1 Indication of changes	MSDS first issued MSDS revision	08 th April 2011 03 rd January 2017
16.2 Abbreviations and acronyms	Not applicable	
16.3 Key literature references and sources for data	ECHA European Chemicals agency	
16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]	Regulation (EU) No. 1272/2008: Classification, labelling and packaging of substances and mixtures. The product does not need to be labelled in accordance with Directive 67/548/EEC. Not classified as a hazardous substance or mixture according to Directive 1999/45/EC.	
16.5 Relevant R-, H- and EUH-phrases (number and full text)	Not applicable	
16.6 Training advice	Follow training instructions when handling this material.	
16.7 Further information	Not available.	
Disclaimer	The information provided in the SDS is correct to the best of our knowledge at the date of publication. This document is intended as a guide for safe handling, storage and use in known industrial applications. The manufacturer makes no representation, warranty or guarantee as to its accuracy, reliability or completeness nor assumes any liability for its use. It is the users responsibility to confirm in advance that the information is current, applicable and suitable to their circumstances for each particular use. No representative of ours has authority to waive this provision.	