
AAFS50

Activated Alumina Safety Data Sheet

Revision Date : 2017

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: **AAFS50** Activated Alumina

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

Industrial applications, Adsorbent for gases and liquids (including dessicant), air separation, catalysts, reaction modification.

Catalyst.

Absorbent

Adsorbent

Use descriptor system (REACH):

PROC 5 / PROC 4 / PROC 10 / PROC 11 / PROC 13 / PROC 19 / PROC 7 / PROC 9 / PROC 8a / PROC 8b / PROC 2 / PROC 23 / PROC 24 / PROC 25 / PROC 14 / PROC 3 ERC 8e / ERC 7 / ERC 3 / ERC 2 / ERC 11a / ERC 4 / ERC 8a / ERC 8d / ERC 5 / ERC 10a / ERC 1 PC 20 / PC 29 / PC 38 / PC 32 / PC 35 / PC 31 / PC 2 / PC 16 / PC 15 / PC 14 / PC 3 / PC 1 / PC 0 SU 10 / SU 12 / SU 13 / SU 14 / SU 17 / SU 8 / SU 9

1.3 - Details of the supplier of the safety data sheet

Solvent Direct Inc.
19300 S Hamilton Ave.
Gardena, CA

833-787-3427

sales@solventdirect.com

1.4 - Emergency telephone number

Emergency number: +1 760 476 3962

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments. No labelling requirements for this mixture. **In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.** Safety phrase: S 22
Do not breathe dust.

Skin corrosion/irritation

Serious eye damage/eye irritation: Not classified.

Category 2

Category 2A



Signal word: Warning

Hazard statement

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

Precautionary Statement Prevention

P264 - Wash thoroughly after handling.

P280 - Wear eye protection/face protection.

P280 - Wear protective gloves.

Response

P302 + P350 - If on skin: Wash with plenty of water.

P305 + P351 + P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313 - If skin irritation occurs: Get medical advice/attention.

P337 + P313 - If eye irritation persists: Get medical advice/attention.

P362 - Take off contaminated clothing and wash before reuse.

Storage: Store away from incompatible materials.

Disposal: Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC): None known.

Supplemental information: None.

2.3. Other hazards: Avoid the formation or spread of dust in the atmosphere.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

No substances fulfil the criteria set forth in annexe II section A of the REACH regulation (EC) n° 1907/2006.

3.2. Mixtures

Chemical Name	CAS Number	%
Aluminium Oxide	1344-28-1	80 - < 90
Diiron Trioxide	1309-37-1	3 - < 5
Disodium Oxide	1313-59-3	1 - < 3
Other components below reportable levels		5 - < 10

Composition:

Identification (EC) 1272/2008 67/548/EEC Note %

CAS: 1344-28-1 [1] 50 ≤ x % < 100

EC: 215-691-6

REACH: 01-2119529248-35 ALUMINIUM OXIDE

Information on ingredients: [1] Substance for which maximum workplace exposure limits are available.

SECTION 4: FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor. NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation: Move the affected person away from the contaminated area and into the fresh air. Call a physician if symptoms develop or persist.

In the event of splashes or contact with eyes: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

In the event of splashes or contact with skin: Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

In the event of swallowing: Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed

The main symptoms and effects known are described in the label (§ 2) and / or in section 11.

Severe eye irritation: Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Skin irritation: May cause redness and pain.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.3. Indication of any immediate medical attention and special treatment needed

Symptomatic treatment. Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable methods of extinction: Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe in smoke. In the event of a fire, the following may be formed: - carbon dioxide (CO₂)

5.3. Advice for firefighters

Special protective equipment and precautions for firefighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Move containers from fire area if you can do so without risk.

Fire fighting equipment/instructions: Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8. Since the product is in the form of balls, it can cause the floor to be very slippery.

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation.

Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

For fire-fighters, Fire-fighters will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions: Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

6.4. Reference to other sections, No data available.

SECTION 7: HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Fire prevention: Prevent access by unauthorized personnel.

Recommended equipment and procedures: For personal protection, see section 8. Observe precautions stated on label and also industrial safety regulations.

Prohibited equipment and procedures: No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Store away from incompatible materials (see Section 10 of the SDS). Keep the container tightly closed in a cool, well ventilated place. To guarantee the quality and properties of the product keep: protected from humidity and bad weather conditions.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits: CAS TWA: STEL: Ceiling: Definition: Criteria: 1344-28-1 0.5 mg/m³ - - - R-USA / OSHA PEL (Occupational Safety and Health Administration, Permissible Exposure Limits):

Derived no effect level (DNEL) or derived minimum effect level (DMEL): ALUMINA/BOEHMITE: DNEL: 3000 µg/m³ (in Al₂O₃)

Predicted no effect concentration (PNEC): ALUMINIUM OXIDE (CAS: 1344-28-1)

Environmental compartment: Fresh water.PNEC: 0.0749 mg/l

Environmental compartment: Waste water treatment plant. PNEC: 20 mg/l

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Aluminium Oxide (CAS 1344-28-1)	PEL	5 mg/m ³	Respirable fraction
		15 mg/m ³	Total dust
Diiron Trioxide (CAS 1309-37-1)	PEL	10 mg/m ³	Fume

US ACGIH Threshold Limit Values

Components	Type	Value	Form
Aluminium Oxide (CAS 1344-28-1)	TWA	1 mg/m ³	Respirable fraction
Diiron Trioxide (CAS 1309-37-1)	TWA	5 mg/m ³	Respirable fraction

US NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Diiron Trioxide (CAS 1309-37-1)	TWA	5 mg/m ³	Dust and fume

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE): Use personal protective equipment that is clean and has been properly maintained. Store personal protective equipment in a clean place, away from the work area. Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

Eye / face protection

Avoid contact with eyes. Before handling powders or dust emission, wear mask goggles in accordance with standard EN166. Safety spectacles with side shields. Face shield is recommended. Wear safety glasses with side shields (or goggles).

Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact. Recommended properties: Impervious gloves in accordance with standard EN374

Body protection

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. Wear appropriate thermal protective clothing, when necessary. Work clothing worn by personnel shall be laundered regularly. After contact with the product, all parts of the body that have been soiled must be washed. Protective clothing with elasticated cuffs and closed neck.

Respiratory protection

Avoid breathing dust. Type of FFP mask: Wear a disposable half-mask dust filter in accordance with standard EN149. Category: - FFP1 Particle filter according to standard EN143: P1 (White)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state: Granular, Solid

Color: Solid, White

Odor: Not available

Important health, safety and environmental information

PH: Not relevant.

Odor threshold: Not available.

Boiling point/boiling range: not relevant.

Flash point interval: not relevant.

Vapor pressure (50°C): not relevant.

Density: < 1

Water solubility: Insoluble.

Melting point/melting range: 2050 °C.

Auto-ignition temperature: not relevant.

Decomposition point/decomposition range: not relevant.

Viscosity: Not available.

Explosive properties: Not explosive.

Oxidizing properties: Not oxidizing.

9.2. Other information

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity Chemical Stability

The product is stable and non-reactive under normal conditions of use, storage and transport. Material is stable under normal conditions.

10.2. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.3. Conditions to avoid

Contact with incompatible materials.

10.4. Incompatible materials

Keep away from: - strong acids- strong bases- strong oxidizing agents

10.5. Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation: Prolonged inhalation may be harmful.

Skin contact: Causes skin irritation.

Eye contact: Causes serious eye irritation. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Ingestion: Expected to be a low ingestion hazard.

11.1.2. Mixture The product has not been tested. The indication is based on the properties of the different components.

Acute toxicity: negative

Skin corrosion/skin irritation: Prolonged or repeated exposure may cause skin irritation and dermatitis due to the defatting properties of the product.

Serious damage to eyes/eye irritation: May cause irritation to eyes due to the presence of a foreign body.

Respiratory or skin sensitization: negative

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicant: This product is not expected to cause reproductive or developmental effects. Not classified.

Chronic effects: Prolonged inhalation may be harmful.

Aspiration hazard: Not an aspiration hazard.

Specific target organ systemic toxicity - single exposure: negative

Specific target organ systemic toxicity - repeated exposure: negative

Symptoms related to the physical, chemical and toxicological characteristics section 11.1

Other information

Activated alumina may adsorb certain gases and liquids. While alumina itself is principally inert, it may exhibit properties of the adsorbed material.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2. Persistence and degradability

The product contains inorganic compounds which are not biodegradable. The other components of the product are slowly biodegradable.

12.3. Bio accumulative potential

Slightly bioaccumulable.

12.4. Mobility in soil

Slightly soluble product readily forms deposits.

12.5. Results of PBT and vPvB assessment

Complies with annexe XIII of regulation CE 1907/2006 (REACH): not applicable to inorganic substances.

12.6. Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: DISPOSAL CONSIDERATIONS

Unused material may be incinerated or landfilled in facilities meeting local regulations.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose in accordance with all applicable regulations. The waste code should be assigned in discussion between the user, the producer and the waste disposal company. Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). The exhausted catalysts may have different risks and properties compared to the original product. This safety data sheet is not applicable to exhausted catalysts. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

Exempt from transport classification and labelling. Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2011 - IMDG 2010 - ICAO/IATA 2012). Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture - Classification and labelling information included in section 2:

The following regulations have been used:- Directive 67/548/EEC and its adaptations - Directive 1999/45/EC and its adaptations - Regulation EC 1272/2008 modified by regulation EC 286/2011

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Container information: No data available.

Particular provisions: No data available.

Hazard categories

Immediate Hazard - Yes

Delayed Hazard - No

Fire Hazard - No

Pressure Hazard - No

15.2. Chemical safety assessment

No data available.

SECTION 16: OTHER INFORMATION

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