

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product name : SPE AL-N  
EC no : 215-691-6  
CAS No : 1344-28-1  
Type of product : Pure substance  
Formula : Al<sub>2</sub>O<sub>3</sub>

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1. Relevant identified uses**

Main use category : Laboratory Use  
Industrial/Professional use spec : Industrial  
For professional use only

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

Phenomenex, Inc.  
411 Madrid Ave.  
90501 Torrance, CA - United States  
T 310-212-0555 - F 310-328-7768  
[info@phenomenex.com](mailto:info@phenomenex.com) - [www.phenomenex.com](http://www.phenomenex.com)

**1.4. Emergency telephone number**

Emergency number : INFOTRAC assistance (United States): +1-800-535-5053  
INFOTRAC assistance (Outside United States): +1-352-323-3500

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]**

Not classified

**Adverse physicochemical, human health and environmental effects**

No additional information available

**2.2. Label elements**

According to EC directives or the corresponding national regulations there is no labeling obligation for this product.

**2.3. Other hazards**

No additional information available

**SECTION 3: Composition/information on ingredients****3.1. Substance**

Not applicable

**3.2. Mixture**

Comments : This product contains no hazardous components

**SECTION 4: First aid measures****4.1. Description of first aid measures**

First-aid measures general : If you feel unwell, seek medical advice. Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.  
First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. Allow victim to breathe fresh air. Allow the victim to rest.  
First-aid measures after skin contact : Rinse with water. Soap may be used. Take victim to a doctor if irritation persists. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

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- First-aid measures after eye contact : Rinse with water. Take victim to an ophthalmologist if irritation persists. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Call Poison Information Centre ([www.big.be/antigif.htm](http://www.big.be/antigif.htm)). Consult a doctor/medical service if you feel unwell. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

- Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.
- Symptoms/injuries after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Coughing. ON HEATING: FOLLOWING SYMPTOMS MAY APPEAR LATER: Metal fume fever. Feeling of weakness. Body temperature rise. Respiratory difficulties.
- Symptoms/injuries after skin contact : Dry skin.
- Symptoms/injuries after eye contact : Slight irritation.
- Symptoms/injuries after ingestion : No effects known.
- Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Coordination disorders.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Adapt extinguishing media to the environment. Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : No unsuitable extinguishing media known. Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : No fire hazard.
- Explosion hazard : None.

### 5.3. Advice for firefighters

- Firefighting instructions : No specific fire-fighting instructions required. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Mark the danger area. Prevent dust cloud formation, e.g. by wetting. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation. Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Stop dust cloud by humidifying. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling. Take up in absorbent material.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Thoroughly clean/dry the installation before use. Avoid raising dust. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
- Hygiene measures : Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

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### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep container closed when not in use. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.
Incompatible materials	: Direct sunlight.
Heat-ignition	: No data available.
Prohibitions on mixed storage	: Keep away from strong acids and strong oxidizers.
Storage area	: Store in dry, well-ventilated area. Store away from heat.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Appropriate engineering controls	: Either local exhaust or general room ventilation is usually required.
Personal protective equipment	: Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety glasses.



Materials for protective clothing	: GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: No data available. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: No data available.
Hand protection	: Gloves. Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration.
Eye protection	: Safety glasses. In case of dust production: protective goggles. Chemical goggles or safety glasses. Safety glasses.
Skin and body protection	: Protective clothing. Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact.
Respiratory protection	: Dust production: dust mask with filter type P2. Wear appropriate mask.
Other information	: Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid. Crystalline powder. Little spheres. Grains. Pellets/tablets.
Molecular mass	: 101.96 g/mol
Color	: White to grey.
Odor	: Odourless.
pH	: 9.0 - 10.5 (aqueous suspension; 33 %)
pH solution	: 33 %
Melting point	: 2050 °C
Freezing point	: No data available
Boiling point	: 2980 °C
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable
Relative density	: 4
Specific gravity / density	: 3950 kg/m <sup>3</sup>
Solubility	: Insoluble in water. Substance sinks in water. Insoluble in organic solvents. Water: < 0.01 g/100ml
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

### 9.2. Other information

VOC content	: 0 %
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Other properties : Substance has basic reaction.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

Stable under normal conditions. Not established.

#### 10.3. Possibility of hazardous reactions

Not established.

#### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

No additional information available

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

##### SPE AL-N (1344-28-1)

LD50 oral rat	> 15900 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Experimental value)
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Irritation : Not classified  
pH: 9.0 - 10.5 (aqueous suspension; 33 %)

Corrosivity : Not classified  
pH: 9.0 - 10.5 (aqueous suspension; 33 %)

Sensitization : Not classified

Repeated dose toxicity : Not classified

Carcinogenicity : Not classified

Mutagenicity : Not classified

Toxicity for reproduction : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006). TA-Luft Klasse 5.2.1.

Ecology - water : No water pollutant (surface water). Slightly harmful to fishes. Slightly harmful to invertebrates (Daphnia). Slightly harmful to algae. pH shift.

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Threshold limit algae 1	> 100 mg/l (72 h; Selenastrum capricornutum; GLP)
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#### 12.2. Persistence and degradability

##### SPE AL-N (1344-28-1)

Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available. Not established.
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Biochemical oxygen demand (BOD)	Not applicable
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Chemical oxygen demand (COD)	Not applicable
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ThOD	Not applicable
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BOD (% of ThOD)	Not applicable
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#### 12.3. Bioaccumulative potential

##### SPE AL-N (1344-28-1)

Bioaccumulative potential	No bioaccumulation data available. Not established.
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#### 12.4. Mobility in soil

No additional information available

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### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Additional information : Avoid release to the environment

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Recycle/reuse. Remove to an authorized dump. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants. Dispose in a safe manner in accordance with local/national regulations.

Additional information : LWCA (the Netherlands): KGA category 05. Can be considered as non hazardous waste according to Directive 2008/98/EC.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not considered hazardous

Proper Shipping Name (IATA) : Not considered hazardous

### 14.3. Packing group

### 14.4. Packing group

Not applicable

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

#### 14.6.1. Overland transport

Transport regulations (ADR) : Not subject

Transport regulations (RID) : Not subject

#### 14.6.2. Transport by sea

Transport regulations (IMDG) : Not subject

#### 14.6.3. Air transport

Transport regulations (IATA) : Not subject

#### 14.6.4. Inland waterway transport

Carriage prohibited (ADN) : No

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains no REACH candidate substance

Contains no REACH Annex XIV substances.

VOC content : 0 %

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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### SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

PHV SDS EU

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