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# MATERIAL SAFETY DATA SHEET

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

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

### 1.1. Product Details

Product Name	Sapphire substrate
Synonyms	Alumina, corundum
Chemical Name	Aluminium oxide
Chemical Formula	Al <sub>2</sub> O <sub>3</sub>
Product Code	S2005
CAS No.	1344-28-1
EC No.	215-691-6

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

Identified uses : Laboratory chemicals

### 1.3. Supplier details

Company Identification	Ossila Limited
Address of Supplier	Solpro Business Park Windsor Street, Sheffield
Postal Code	S4 7WB, UK
Telephone :	0114 2999 180
Email address :	info@ossila.com

## 2. Hazards identification

### 2.1. Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

### 2.2. Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

### 2.3. Other hazards

None.

## 3. Composition/Information on ingredients

### 3.1. Substances

No components need to be disclosed according to the applicable regulations.

## 4. First aid measures

### 4.1. Description of first aid measures

**Inhalation** Remove person to fresh air. If not breathing, give person artificial respiration.

**Skin contact** Wash with soap and water.

**Eye contact** Flush with copious amounts of water as a precaution.

**Ingestion** Rinse out mouth with water.

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

The most important known symptoms and effects are described in section 11.

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

No data available.

## 5. Fire fighting

### 5.1. Extinguishing media

**Suitable extinguishing media:** As appropriate for surrounding fire. This substance is non-flammable.

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

None.

### 5.3. Advice for firefighters

None.

## 6. Accidental release measures

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

Wear personal protective equipment (section 8). Avoid dust formation.

### 6.2. Environmental precautions

None.

### 6.3. Containment and cleaning

Dispose of dry waste in closed container for proper disposal according to local regulations. Avoid sharp edges.

## 7. Handling and storage

### 7.1. Precautions for safe handling

Avoid formation of dust. Provide exhaust ventilation in places where dust is formed.

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

No special requirements.

**Storage temperature** Ambient  
**Storage life** Stable under normal conditions.

### 7.3. Specific end uses

Use in laboratories.

## 8. Exposure controls / Personal protection

### 8.1. Control parameters

#### 8.1.1 Occupational Exposure Limits

As dust: 10 mg/m<sup>3</sup> in 8 hour time weighted average (TWA).

### 8.2. Exposure controls

#### 8.2.1 Engineering measures

Handle in accordance with good industrial engineering/laboratory practices for hygiene and safety. Ensure eyewash stations and safety showers are close to the laboratory workstation. Ensure good general ventilation is present when handling the product.

#### 8.2.2 Personal protective equipment

**Eye Protection** Wear safety glasses with side-shields conforming to appropriate government standards such as NOISH (US) or EN166 (EU) when the possibility of dust creation or chipping is present.

**Skin Protection** Wear protective clothing and gloves. Use gloves that satisfy the specifications of your national standards (e.g. EN 374). Wash hands after handling. Wash contaminated clothing after use.

**Respirators:** Where protection from nuisance dusts is needed, use type N95 (US) or type P1 (EN 143) dust masks or those approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### 8.2.3 Environmental Exposure Controls

Avoid release to the environment.

## 9. Physical and chemical properties

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

Appearance	<b>Transparent solid</b>
Odour	None
Odour threshold	No data available
pH	No data available
Melting/freezing point	No data available
Boiling point/range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability	No data available
Explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Solubility(ies)	No data available
Partition coefficient: <i>n</i> -octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available

Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available

## 9.2. Other safety information

No data available.

## 10. Stability and reactivity

### 10.1 Reactivity

No data available.

### 10.2. Chemical stability

Stable under normal temperatures and pressures under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

No data available.

### 10.5. Incompatible materials

No data available.

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## 11. Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

No data available.

#### Skin corrosion/irritation

No data available.

#### Serious eye damage/irritation

No data available.

#### Respiratory sensitisation

No data available.

#### Skin sensitisation

No data available.

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

No data available.

#### Reproductive toxicity

No data available.

#### STOT - single exposure

No data available.

#### STOT - repeated exposure

No data available.

**Aspiration hazard**

No data available.

**Routes of exposure**

Eye contact, ingestion, inhalation, skin contact.

**Signs and Symptoms of Exposure**

No data available.

**11.2 Other information**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**12. Ecological information****12.1. Toxicity**

No data available.

**12.2. Persistence and degradability**

No data available.

**12.3. Bioaccumulative potential**

No data available.

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**12.6. Other adverse effects**

No data available.

**13. Disposal****13.1. Waste treatment methods****Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations and directives on waste and hazardous waste. Offer surplus material to a licensed professional waste disposal professional.

**Contaminated packaging**

Dispose of as unused product.

**14. Transport**

Non-hazardous for road, air and sea transport.

**IATA:** Not regulated as a hazardous material.

**IMO:** Not regulated as a hazardous material.

**RID/ADR:** Not regulated as a hazardous material.

## 15. Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006, the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

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

No data available.

### 15.2 Chemical safety assessment

No chemical safety report/assessment was carried out for this product.

## 16. Other information

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### LEGEND

Acronyms	ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
	ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
	CAS : Chemical Abstracts Service
	CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
	DNEL : Derived No Effect Level
	EC : European Community
	EINECS : European Inventory of Existing Commercial Chemical Substances
	IATA : International Air Transport Association
	IBC : Intermediate Bulk Container
	ICAO : International Civil Aviation Organization
	IMDG : International Maritime Dangerous Goods
	LTEL : Long term exposure limit
	PBT : Persistent, Bioaccumulative and Toxic
	PNEC : Predicted No Effect Concentration
	REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
	RID : Regulations concerning the International Carriage of Dangerous Goods by Rail
	STEL : Short term exposure limit
	STOT : Specific Target Organ Toxicity
	UN : United Nations
	vPvB : very Persistent and very Bioaccumulative