

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

#### 1.1. Product identifier

Product name : Aluminum Coated Electrode  
AWS Specification : AWS 5.3, E4043

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

##### 1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use  
Industrial/Professional use spec : Industrial  
Use of the substance/mixture : Coated Electrodes for Manual Metal Arc Welding  
Function or use category : Welding and soldering agents

##### 1.2.2. Uses advised against

No additional information available

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

Oxford Alloys, Inc.  
2632 Tee Dr.  
Baton Rouge, LA 70814  
[technical@oxfordalloys.com](mailto:technical@oxfordalloys.com)

#### 1.4. Emergency telephone number

Emergency number : 225-273-4800

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Full text of H-statements: see section 16	

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

No additional information available

#### 2.2. Label elements

Coated electrodes have a compact constitution and are to be considered as equivalent to metals in massive form. As a consequence, derogation from labelling requirements shall apply according to EEC/67/548 directive (Annexe VI) and 1272/2008 (EC) regulation (Article 23).  
No labelling applicable

#### 2.3. Other hazards

Other hazards which do not result in classification : Hazards during welding process : Arc rays. Heat and noise from the electrical arc. Welding fumes / gases. Electric shock. Fire and explosion hazards. Exposure to electromagnetic fields.

PBT: not relevant – no registration required  
vPvB: not relevant – no registration required

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Lithium fluoride	(CAS-No.) 7789-24-4 (EC-No.) 232-152-0	5 – 15	Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Aluminium fluoride	(CAS-No.) 7784-18-1 (EC-No.) 232-051-1	2 – 10	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Allow affected person to breathe fresh air. Remove person to fresh air and keep comfortable for breathing. In case of doubt or persistent symptoms, consult always a physician.
First-aid measures after skin contact	: When symptoms occur: rinse immediately with plenty of water. The melted product adheres to the skin and causes burns. Treat as thermal burns.
First-aid measures after eye contact	: In case of contact with dust or fumes with the eyes, rinse immediately with plenty of water.
First-aid measures after ingestion	: Ingestion unlikely.

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

Symptoms/effects after inhalation	: Welding fumes are classified carcinogenic to humans "group 1" by IARC (Monograph 118, 2017).
Symptoms/effects after skin contact	: The melted product adheres to the skin and causes burns.
Symptoms/effects after eye contact	: Contact with welding fumes can be irritating to the eyes. Irritation or eye burns due to the radiation thermal, infrared or ultraviolet (arc welding).

### 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	: No special requirements. Only combustible materials adjacent to the welding unit may cause a fire or explosion. Means of extinction must therefore be adapted to the inflamed matters.
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### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Coated electrodes are not flammable. Fire or explosion hazards are provoked by heat sources (molten metal, slag, electrodes stubend, recently welded pieces, etc) combined with flammable materials (included dust and gaz).
Hazardous decomposition products in case of fire	: Toxic and corrosive vapours may be released.

### 5.3. Advice for firefighters

Precautionary measures fire	: Respiratory protection equipment may be necessary.
Firefighting instructions	: Prevent fire fighting water from entering the environment. Exercise caution when fighting any chemical fire.
Protection during firefighting	: 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

General measures : None.

#### 6.1.1. For non-emergency personnel

Protective equipment	: No special protection required.
Emergency procedures	: Start cleanup only if spill has cooled completely. Mechanically recover the product.

#### 6.1.2. For emergency responders

Protective equipment	: No special protection required.
Emergency procedures	: Start cleanup only if spill has cooled completely. Mechanically recover the product.

### 6.2. Environmental precautions

Avoid release to the environment.

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

No additional information available

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Use personal protective equipment as required. Provide good ventilation in process area to prevent formation of vapour. Do not eat, drink or smoke when using this product.
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### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a dry place. Keep container closed when not in use.
Incompatible products	: Strong acids.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

**8.1.5. Control banding**

No additional information available

**8.2. Exposure controls**

**8.2.1. Appropriate engineering controls**

No additional information available

**8.2.2. Personal protection equipment**

**Personal protective equipment:**

Insulated gloves. Safety glasses. Heatproof clothing. Insufficient ventilation: wear respiratory protection.

**Personal protective equipment symbol(s):**



**8.2.2.1. Eye and face protection**

**Eye protection:**

Mask active welder with electro-optical or passive display with tinted glass. Eye protection equipment must conform to standard EN 175.

**8.2.2.2. Skin protection**

**Skin and body protection:**

Clothing protection suitable for welding operations and comply with standards EN 470 - 1 and EN 531.

**Hand protection:**

Welding gloves in leather and refractory fleece with cufflinks, complying with standard EN 12477.

**8.2.2.3. Respiratory protection**

**Respiratory protection:**

The protection of the welder against releases of vapours and gases must be ensured by ventilation or forced ventilation of the welding machine. When using the product in a confined environment or excessive production of smoke, wear a mask equipped with a built-in respiratory filter type FFP3 or a stand-alone system ventilation, complies with EN 12941.

**8.2.2.4. Thermal hazards**

No additional information available

**8.2.3. Environmental exposure controls**

No additional information available

**SECTION 9: Physical and chemical properties**

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

Physical state	: Solid
Appearance	: Coated Electrodes for Manual Metal Arc Welding.
Colour	: No data available
Odour	: odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 500 – 700 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available

Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 2500 – 3200 kg/m <sup>3</sup>
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

No additional information available

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Welding fumes / gases.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### Al105, Al112

ATE CLP (oral)	909,091 mg/kg bodyweight
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#### Lithium fluoride (7789-24-4)

LD50 oral rat	143 mg/kg
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Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified

Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

### Aluminium fluoride (7784-18-1)

STOT-single exposure	May cause respiratory irritation.
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### Lithium fluoride (7789-24-4)

STOT-single exposure	May cause respiratory irritation.
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STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

#### Al105, Al112

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
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## SECTION 14: Transport information

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

### 14.1 UN number

UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable

### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable

### 14.3. Transport hazard class(es)

<b>ADR</b>	
Transport hazard class(es) (ADR)	: Not applicable
<b>IMDG</b>	
Transport hazard class(es) (IMDG)	: Not applicable
<b>IATA</b>	
Transport hazard class(es) (IATA)	: Not applicable
<b>ADN</b>	
Transport hazard class(es) (ADN)	: Not applicable
<b>RID</b>	
Transport hazard class(es) (RID)	: Not applicable

### 14.4. Packing group

Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

### 14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

No data available

#### Transport by sea

No data available

#### Air transport

No data available

#### Inland waterway transport

No data available

#### Rail transport

No data available

### 14.7. Transport in bulk according to Annex II of Marpol 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 REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

##### 15.1.2. National regulations

###### Germany

Water hazard class (WGK)

: WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV)

: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

###### Netherlands

SZW-lijst van kankerverwekkende stoffen

: Aluminium fluoride, Lithium fluoride are listed

SZW-lijst van mutagene stoffen

: Aluminium fluoride, Lithium fluoride are listed

SZW-lijst van reprotoxische stoffen – Borstvoeding

: None of the components are listed

SZW-lijst van reprotoxische stoffen –

: None of the components are listed

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling

: None of the components are listed

###### Denmark

Danish National Regulations

: Young people below the age of 18 years are not allowed to use the product

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

### SECTION 16: Other information

#### Full text of H- and EUH-statements:

Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.