

**Section 1. Identification****1.1 Product Identifier** ZI6706

Product Name	ZINC NITRATE 6H <sub>2</sub> O pure 250g.
CAS Number	10196-18-6
REACH Registration No	A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.
Molecular Formula	$Zn(NO_3)_2 \cdot 6H_2O = 297.48$

**1.2 Relevant identified uses of the substance or mixture & uses advised against**

Uses of Material	Chemical for industrial and laboratory use. Not suitable for domestic use.
------------------	--

**1.3 Supplier** WF Education Group

Phoenix House  
Battlefield Enterprise Park  
Stafford Drive  
Shrewsbury  
Shropshire  
SY1 3FE  
UNITED KINGDOM

Phone	+44(0)1743 812200
Email	sales@wf-education.com
Website	www.timstar.co.uk

**1.4 Emergency Telephone** (08:30-17:00) +44(0)1743 812200  
(24hr) 112  
(Have this document to hand)**Section 2. Hazards Identification****2.1 Classification of the substance or mixture****Classification according to regulation 1272/2008/EC**

Oxidising solid, category 2	H272: May intensify fire; oxidizer.
Acute toxicity, category 4 (oral)	H302: Harmful if swallowed.
Skin corrosion/irritation, category 2	H315: Causes skin irritation.
Serious eye damage/irritation, category 2	H319: Causes serious eye irritation.
Spec target organ tox - single, category 3	H335: May cause respiratory irritation.
Hazard to aquatic environment, category 2	H411: Toxic to aquatic life with long lasting effects.

**2.2 Label elements****Labelling according to regulation 1272/2008/EC**

Signal word	Danger
-------------	--------

Hazard Pictograms



**Hazard Statements** May intensify fire; oxidizer. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Toxic to aquatic life with long lasting effects.

**Precautionary Statements** Keep away from heat / sparks/open flames/hot surfaces - No smoking. Keep / Store away from clothing / combustible materials. Take any precaution to avoid mixing with combustibles... Wear protective gloves / protective clothing / eye protection. Avoid release to the environment. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

## Section 3. Composition

### 3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Zinc nitrate	10196-18-6	231-943-8		>98%	Ox. Sol. 2, Acute Tox. 4 (O), Skin Irrit. 2, Eye Irrit. 2, STOT SE 3 (I), Aquatic Chronic 2

## Section 4. First Aid

### 4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION.
Skin	Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use.
Inhalation	Remove from exposure.
Ingestion	If conscious give plenty of water to drink. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

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

No further relevant information available.

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

No further relevant information available.

## Section 5. Fire Fighting

### 5.1 Extinguishing media

Extinguishing Media	Water spray.
Unsuitable Media	Nothing specified.

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

Hazards May evolve toxic fumes if involved in a fire. Mixtures with combustible materials are flammable.

### 5.3 Advice for firefighters

Advice for firefighters Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.

## Section 6. Accidental Release Measures

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

Personal Protection      Presents no major hazards.

### 6.2 Environmental precautions

Environmental      Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

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

Major Spillage      Shovel/sweep up into container for removal Wash area down with copious amounts of water.  
Minor Spillage      Wash area down with copious amounts of water.

### 6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

## Section 7. Storage & Handling

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.

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

Well ventilated, cool, dry storage . Store in a suitable area for oxidising agents. Keep well separated from combustible materials.

### 7.3 Specific end use(s)

See section 1.2.

## Section 8. Workplace Exposure & Personal Protection

### 8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits			
			Long Term (8hr TWA)		Short Term 15min period	
Zinc nitrate	10196-18-6	>98%	-	-	-	-

Exposure data source(s)      No occupational exposure data currently available.

### 8.2 Exposure controls

Respiratory Protection      If process creates significant amounts of dust use L.E.V. or wear suitable dust mask.  
Hand Protection      Wear gloves.  
Eye Protection      Use tightly fitting chemical splash proof glasses or goggles.  
Skin Protection      Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.  
Special Hazards      No special precautions required.

## Section 9. Physical & Chemical Properties

### 9.1 Information on basic physical and chemical properties

Appearance      Colourless crystals or white powder.  
Odour      No specific odour.  
pH      5 @ 20°C solution.  
Boiling Point      Not available  
Melting Point      36°C  
Flash Point      Not applicable  
Upper Flammable Limit      Not applicable  
Lower Flammable Limit      Not applicable  
Auto Ignition      Not applicable  
Explosive Properties      No.  
Oxidising Properties      Yes.  
Vapour Pressure      Not applicable  
Relative Density      2.0600

Water Solubility 50%

## 9.2 Other information

No data available.

## Section 10. Stability & Reactivity

- |      |                                    |   |
|------|------------------------------------|---|
| 10.1 | Reactivity                         | No data available.  |
| 10.2 | Chemical Stability                 | Stable under normal conditions  |
| 10.3 | Possibility of hazardous reactions | No data available.  |
| 10.4 | Conditions to Avoid                | Do not allow to impregnate wood or other organic materials.                                     |
| 10.5 | Incompatible Materials             | Combustible materials. Many organic compounds.  |
| 10.6 | Hazardous Decomposition Products   | Not flammable but will assist a fire, producing irritant and toxic fumes of oxides of nitrogen. |

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

- |                      |   |
|----------------------|---|
| Eyes                 | Causes serious eye irritation.                          |
| Skin                 | The solid and solutions will be irritating to the skin. |
| LD50 Skin            | Not available   |
| Ingestion            | Low order of acute toxicity.                            |
| LD50 Oral            | 1190mg/kg Rat   |
| Inhalation           | May cause respiratory irritation.                       |
| LD50 Inhalation      | Not available   |
| TCLo                 | Not available   |
| Carcinogenicity      | No information is available.                            |
| Mutagenicity         | No information is available.                            |
| Reproductive Effects | No information is available.                            |

## Section 12. Ecological

- |      |                                  |   |
|------|----------------------------------|---|
| 12.1 | Toxicity                         | Low levels are readily bio-degraded in the environment. Higher levels are toxic to marine and plant life. |
|      | LC50 Algal                       | Not available   |
|      | LC50 Crustacea                   | Not available   |
|      | LC50 Fish                        | 7.8mg/l Fish (96 hours)   |
| 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 & vPvB assessment | Assessment not required.  |
| 12.6 | Other adverse effects            | None known at present.  |

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

- |                        |                                      |
|------------------------|--------------------------------------|
| Disposal Methods       | Do not dispose of as domestic waste. |
| Contaminated Packaging | Wash out containers with water.      |

## Section 14. Transport Information

14.1 UN Number	1514
14.2 Proper Shipping Name	Zinc nitrate
14.3 Transport classes	
UN classification	5.1
Subsidiary hazard(s)	None
Transport category	2
ADR Hazard ID	50
Tunnel Restriction Code	E
14.4 Packing Group	II
14.5 Environment hazards	See section 12.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	Not transported in bulk.



## Section 15. Regulatory Information

### 15.1 Safety, health and environment regulations specific for substance/mixture.

#### Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Oxidising solid, category 2; Acute toxicity, category 4 (oral); Skin corrosion/irritation, category 2; Serious eye damage/irritation, category 2; Spec target organ tox - single, category 3; Hazard to aquatic environment, category 2

Signal word Danger

Hazard Pictograms



Hazard Statements H272, H302, H315, H319, H335, H411  
May intensify fire; oxidizer. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Toxic to aquatic life with long lasting effects.

Precautionary Statements P210, P220, P221, P280, P273, P302+P352, P305+P351+P338  
Keep away from heat / sparks/open flames/hot surfaces - No smoking. Keep / Store away from clothing / combustible materials. Take any precaution to avoid mixing with combustibles... Wear protective gloves / protective clothing / eye protection. Avoid release to the environment. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

### 15.2 Chemical safety assessment

Assessment not required.

## Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

Revision number: 1.1 (Supersedes revision 1.0)

Revision date: 16 April 2021

Reviewed by chemist: 16 April 2021

Printed date: 07 June 2021

Copyright: 2021 WF Education Group