

# Safety Data Sheet

## ZINCOGEN 318

Revision Date: 2020-11-09  
Revision 4



Classification Symbol(s)	Personal Protective Equipment (PPE)	Transport Symbols

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Commodity code** 07021 - Z318  
**Product Name** ZINCOGEN 318  
**Product use** Covering flux. Foundry flux. Metallurgical treatment of zinc and its alloys.

**Details of the supplier**  
 Pyrotek Pty. Ltd.  
 147-149 Magowar Road  
 Girraween  
 NSW 2145  
 Australia

Pyrotek (61) (0)2 8868 2000  
 Email: SDS@pyrotek-inc.com REACH email: REACH@pyrotek-inc.com

**Emergency Telephone Number** CHEMTREC 1800 752 022 (24 hrs), Pyrotek Australia 1800 679 422

### 2. Hazards Identification

<b>Acute oral toxicity</b>	Category 3
<b>Acute dermal toxicity</b>	Category 3
<b>Acute inhalation toxicity - dust/mist</b>	Category 3

**Signal word:** DANGER

#### Hazard statements

H301 - Toxic if swallowed  
 H311 - Toxic in contact with skin  
 H331 - Toxic if inhaled

#### Precautionary statements

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P271 - Use only outdoors or in a well-ventilated area  
 P280 - Wear protective gloves and eye/face protection  
 P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
 P330 - Rinse mouth  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 P311 - Call a POISON CENTER or doctor/physician  
 P361 - Remove/Take off immediately all contaminated clothing  
 P363 - Wash contaminated clothing before reuse

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
 P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

**Classification Symbol(s)** Skull and crossbones.



**Australian Hazchem Code** 2X

**Poison Schedule Number** /\*Australia only\*/Schedule 6

### 3. Composition/information on Ingredients

Chemical name	CAS No.	EC No	Weight-%	Classification based on individual ingredients of the mixture	Australia - NOHSC Labelling
Sodium silicofluoride	16893-85-9	240-934-8	10 - 30%	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331)	>=1%C<10%: Xn: R20/21/22; S:(1/2)-26-45

All other ingredients determined not to be hazardous according to GHS criteria

### 4. First Aid Measures

<b>General advice</b>	Immediate medical attention is required.
<b>Inhalation</b>	Move to fresh air in case of accidental inhalation of vapors. If breathing is difficult, give oxygen. Consult a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting without medical advice. Rinse mouth immediately. Never give anything by mouth to an unconscious person.
<b>First Aid Facilities</b>	Eyewash station recommended Safety shower recommended
<b>Aggravated Medical Conditions</b>	Not applicable.
<b>Notes to Physician</b>	Not applicable.

**For advice, contact Poisons Information Centre**  
**In Australia, call Tel: 13 1126**  
**In New Zealand, call Tel: 034747000**

### 5. Fire-Fighting Measures

<b>Flammable properties</b>	None known.
<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ), pellets, Dry chemical, Water spray
<b>Unsuitable Extinguishing Media</b>	None known.

<b>Special exposure hazards in a fire</b>	Thermal decomposition can lead to release of irritating gases and vapors.
<b>Specific hazards arising from the chemical</b>	None known.
<b>Protective equipment and precautions for firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>Australian Hazchem Code</b>	2X
<b>Poison Schedule Number</b>	/*Australia only*/Schedule 6

## 6. Accidental Release Measures

<b>Personal precautions</b>	Appropriate protective equipment as detailed in section 8. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Avoid dust formation.
<b>Environmental Precautions</b>	Do not flush into surface water or sanitary sewer system. Should not be released into the environment. In case spills enter sewers or bodies of water, notify the sewer authority or other appropriate agencies immediately.
<b>Methods for cleaning up</b>	Wear protective gloves/clothing and eye/face protection. Pick up and arrange disposal without creating airborne dust. After cleaning, flush away traces with water.

## 7. Handling and Storage

<b>Handling</b>	Do not breathe vapors / dust. Avoid contact with skin, eyes and clothing. Remove all sources of ignition.
<b>Storage</b>	Store in original container. Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition.
<b>Materials to avoid</b>	Incompatible with strong acids and bases. Oxidizing agent. Reducing agents.

## 8. Exposure Controls/Personal Protection

<b>Exposure Guidelines</b>	No exposure limit allocated
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Chemical name	Health Surveillance
Sodium silicofluoride	No biological limit allocated

### Occupational exposure controls

<b>Engineering Controls</b>	Ensure adequate ventilation, especially in confined areas when mist is present.
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<b>Environmental exposure controls</b>	Not applicable.
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### **Personal Protective Equipment**

Considerations to aid the user in PPE assessments in line with expected use follow below. However in certain circumstances the user must determine if additional protective equipment is required.

If exposure limits are exceeded or irritation is experienced, locally approved respiratory protection should be worn.

Positive-pressure supplied air respirators may be required if high airborne contaminant concentrations as a result of the use of the product. Proper skin and eye protection should also be determined by the user and provided in accordance with current local regulations.

<b>Eye Protection</b>	Tightly fitting safety goggles.
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<b>Respiratory protection</b>	Respiratory protection with dust filter, FFP3. For the industrial use of flux under dusty conditions creating airborne levels at or above OSHA PEL levels as listed in the above table, respiratory protection is necessary. A full face mask with an effective dust mask or
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	respirator must be worn.
<b>Skin Protection</b>	Protective clothing as (when) required: Work uniform or laboratory coat, Safety shoes.
<b>Hand Protection</b>	Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374
<b>General industrial hygiene practice</b>	Avoid contact with skin, eyes and clothing. Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day. Remove and wash contaminated clothing before re-use.

## 9. Physical and Chemical Properties

<b>Physical state</b>	Flakes	<b>Appearance</b>	Amorphous
<b>Color</b>	White	<b>Odor</b>	Petroleum distillates
<b>pH - VALUE 1</b>	No data available	<b>Solubility(ies)</b>	Soluble in water
<b>Liquid Density</b>	1.1 g/cm <sup>3</sup>	<b>Vapor pressure @20 °C (kPa)</b>	No data available
<b>Vapor density</b>	No data available		
<b>Melting point/range</b>	No data available	<b>Boiling point / boiling range</b>	No data available
<b>Autoignition temperature</b>	Does not ignite	<b>Flash point</b>	<=
<b>Lower explosion limit</b>	No data available	<b>Upper explosion limit</b>	No data available

## 10. Stability and Reactivity

<b>Stability</b>	Stable up to approximately 800°C.
<b>Conditions to Avoid</b>	To avoid thermal decomposition, do not overheat.
<b>Materials to avoid</b>	Incompatible with strong acids and bases. Oxidizing agent. Reducing agents.
<b>Hazardous Decomposition Products</b>	Heating or fire can release toxic gas: Silicon oxides. May emit toxic fluorides if strongly heated in the presence of water.
<b>Possibility of Hazardous Reactions</b>	Not applicable

## 11. Toxicological Information

**Local effects** Not applicable.

**Target organ effects** Not applicable.

### Acute Toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium silicofluoride - 16893-85-9	= 125 mg/kg ( Rat )		

### Potential Health Effects

**Inhalation** Irritating to respiratory system. Breathlessness, headache, nausea. Inhalation of fluorides can cause pulmonary edema. It can also cause fluorosis, kidney and liver damage, and bone damage.

**Eye Contact** Eye irritation.

**Skin Contact** Irritating to skin. Prolonged skin contact may cause skin irritation and/or dermatitis.

**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Main symptoms** Toxic if inhaled, ingested, and in contact with skin. Acute reactions may include burning sensations, ulcerations of the oral cavity, throat and digestive system, may cause gastric pains, nausea, vomiting and diarrhoea, accompanied by tremors, convulsions and shock.

**Specific effects**

<b>Carcinogenic effects</b>	Not applicable.
<b>Mutagenic effects</b>	Not applicable.
<b>Reproductive Toxicity</b>	Not applicable.

## 12. Ecological Information

<b>Ecotoxicity effects</b>	Avoid release to the environment. The product should not be allowed to enter drains, water courses or the soil.
<u>Sodium silicofluoride</u> Fish	65 mg/L: 96 h <i>Poecilia reticulata</i> mg/L LC50 static
<b>Persistence and degradability</b>	None known
<b>Mobility in Environmental Media</b>	None known
<b>Bioaccumulation</b>	None known

## 13. Disposal Considerations

<b>Waste disposal methods</b>	This material and its container must be disposed of as hazardous waste. Dispose of in accordance with federal, state and local regulations.
<b>Contaminated packaging</b>	This material and its container must be disposed of as hazardous waste.

## 14. Transport Information

**Transport Symbols****ADR/RID - Rail / road transport**

<b>Packing Group</b>	III
<b>Transport hazard class(es)</b>	6.1
<b>Classification code</b>	T5
<b>Description</b>	UN2674 Sodium fluorosilicate,6.1,III,,Mixture
<b>UN number</b>	UN2674

**ICAO/IATA - Air transport**

<b>Proper Shipping Name</b>	Sodium fluorosilicate (Mixture)
<b>Packing Group</b>	III
<b>Hazard Class</b>	6.1
<b>Description</b>	UN2674,Sodium fluorosilicate,6.1,PG III,Mixture
<b>UN Number</b>	UN2674

**IMDG**

<b>UN proper shipping name</b>	Sodium fluorosilicate (Mixture)
<b>Packing Group</b>	III
<b>Transport hazard class(es)</b>	6.1

**Description** UN2674, Sodium fluorosilicate,6.1,PG III,Mixture  
**Ems No.** F-A, S-A  
**UN number** UN2674  
**Precautionary Statements - Response** 6L

## 15. Regulatory Information

### International Inventories

Chemical name	EINECS	ELINCS	PICCS	ENCS	DSL	NDSL	TSCA	China	AICS	KECL
Sodium silicofluoride	X		X	X	X		X	X	X	X

**Carcinogenic substances** Contains substances considered carcinogenic according to the following regulatory classifications

Chemical name	Australia	European Union	IARC
Sodium silicofluoride			Group 3 Group 2A

**Australian Hazchem Code** 2X  
**Poison Schedule Number** /\*Australia only\*/Schedule 6

## 16. Other Information

**Revision Date:** 2020-11-09

**Reason for Revision** Routine review with applicable updates to better reflect product.

**Prepared By:** Pyrotek Inc  
 9503 E. Montgomery Ave  
 Spokane, WA 99206 USA  
 Ph: (509) 926-6212  
 Fax: (509) 927-2408  
 msds@pyrotek-inc.com.

**Literary reference** Information taken from reference works and the literature.

### Key Legend Information

SWA - Safe Work Australia (formerly ASCC - Australian Safety and Compensation Council and NOHSC - National Occupational Health & Safety Commission)  
 SUSDP - Standard for the Uniform Scheduling of Drugs and Poisons [Aust]  
 TWA - Time Weighted Average [Int]  
 STEL - Short Term Exposure Limit [Int]  
 AICS - Australian Inventory of Chemical Substances [Aust]  
 Dangerous Goods - Initial Emergency Response Guide (SAA/SNZ HB76:2004)[Aust]  
 AS/NZS 1715 - Selection, use and maintenance of respiratory protective devices. [Aust/NZ]  
 Hazchem Code - Fire fighters designation [Aust]  
 IATA - International Aviation Transport Authority [Int]  
 IMDG - International Maritime Dangerous Goods [Int]  
 ADR/RID - European Road & Rail Transportation Union - [Int]  
 GHS - United Nations Globally Harmonized System for the classification and labelling of Chemicals [Int]  
 EINECS - European Inventory of Existing Commercial Chemical Substances [Int]  
 ELINCS - European List of Notified Chemical Substances [Int]  
 EU - European Union [Int]

[Aust/NZ] = Australian New Zealand  
 [Int] = International

**End of SDS**