

**Section 1. Identification****1.1 Product Identifier** 2347

Product Name	HYDROXYLAMINE HYDROCHLORIDE A.R.
CAS Number	5470-11-1
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	$\text{NH}_2\text{OH}\cdot\text{HCl}$ = 69.49

**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.
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**1.3 Supplier** Vickers Laboratories Ltd

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**1.4 Emergency Telephone** (08:00-16:30) +44(0) 113 2362811  
(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**

Corrosive to metals, category 1	H290: May be corrosive to metals.
Acute toxicity, category 4 (oral)	H302: Harmful if swallowed.
Skin corrosion/irritation, category 2	H315: Causes skin irritation.
Acute toxicity, category 4 (dermal)	H312: Harmful in contact with skin.
Serious eye damage/irritation, category 2	H319: Causes serious eye irritation.
Skin sensitization, category 1	H317: May cause an allergic skin reaction.
Carcinogenicity, category 2	H351: Suspected of causing cancer.
Spec target organ tox - repeat, category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Hazard to aquatic environment, category 1	H400: Very toxic to aquatic life.

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

Signal word	Warning
Hazard Pictograms	



**Hazard Statements** May be corrosive to metals. Suspected of causing cancer. Harmful in contact with skin. Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure. Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. Very toxic to aquatic life.

**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.

## Section 3. Composition

### 3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Hydroxylamine hydrochloride	5470-11-1	226-798-2		>99%	Met. Corr. 1, Acute Tox. 4 (O), Skin Irrit. 2, Acute Tox. 4 (D), Eye Irrit. 2, Skin Sens. 1, Carc. 2, STOT RE 2, Aquatic Acute 1

## 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. If discomfort persists OBTAIN MEDICAL ATTENTION.
Inhalation	Remove from exposure.
Ingestion	Wash out the patients mouth thoroughly with water. Do not induce vomiting. OBTAIN MEDICAL ATTENTION.
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	Consider what other flammable materials are present and act accordingly.
Unsuitable Media	Nothing specified.

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

Hazards	May evolve toxic fumes if involved in a fire.
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### 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.
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## Section 6. Accidental Release Measures

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

Personal Protection Avoid breathing dust. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so.

## 6.2 Environmental precautions

Environmental 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.

Ensure Local Exhaust Ventilation maintains dust concentrations to a minimum.

## 7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Protect against moisture to prevent decomposition and corrosion.

## 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)
Hydroxylamine hydrochloride	5470-11-1	>99%	-	-

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 White crystalline powder.  
Odour No specific odour.  
pH 4 @ 20°C  
Boiling Point Not available  
Melting Point 157°C  
Flash Point Not applicable  
Upper Flammable Limit Not applicable  
Lower Flammable Limit Not applicable  
Auto Ignition Not applicable  
Explosive Properties No.  
Oxidising Properties No.

Vapour Pressure	Not applicable
Relative Density	1.6700
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 but starts to decompose at 120C liberating hydrogen chloride.
10.3	Possibility of hazardous reactions	No data available.
10.4	Conditions to Avoid	Avoid contact with moisture and temperatures above 120C.
10.5	Incompatible Materials	Alkalies and nitrites.
10.6	Hazardous Decomposition Products	When heated to decomposition emits hydrogen chloride. Contact with alkalies liberates ammonia.

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

Eyes	Contact with the solid or dust may cause conjunctival irritation and corneal damage.
Skin	Contact with the solid or dust may be irritating to the skin. Repeated exposure may cause dermatitis.
LD50 Skin	Not available
Ingestion	Harmful if swallowed.
LD50 Oral	650mg/kg Rat
Inhalation	Prolonged exposure to dust or fume concentrations above the occupational exposure limits will produce irritation of the eyes and respiratory tract.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	Classed as a potential human carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.

## Section 12. Ecological

12.1	Toxicity	Toxic to fish-LC50 (Foldorfen test) <10ppm. Very toxic to aquatic organisms.
	LC50 Algal	Not available
	LC50 Crustacea	Not available
	LC50 Fish	Not 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 & 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	Dispose of in a licensed incinerator.
Contaminated Packaging	Wash out containers with water. Use a licensed waste disposer.

## Section 14. Transport Information

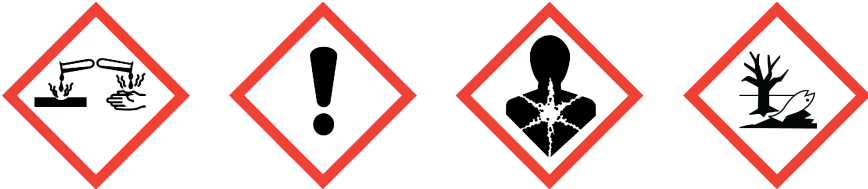
<b>14.1 UN Number</b>	2923
<b>14.2 Proper Shipping Name</b>	Corrosive solid, toxic, N.O.S. (Hydroxylamine Hydrochloride)
<b>14.3 Transport classes</b>	
UN classification	8
Subsidiary hazard(s)	6.1
Transport category	3
ADR Hazard ID	86
Tunnel Restriction Code	E
<b>14.4 Packing Group</b>	III
<b>14.5 Environment hazards</b>	See section 12.
<b>14.6 Special precautions for user</b>	No special precautions required.
<b>14.7 Transport in bulk</b>	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	Corrosive to metals, category 1; Acute toxicity, category 4 (oral); Skin corrosion/irritation, category 2; Acute toxicity, category 4 (dermal); Serious eye damage/irritation, category 2; Skin sensitization, category 1; Carcinogenicity, category 2; Spec target organ tox - repeat, category 2; Hazard to aquatic environment, category 1
Signal word	Warning
Hazard Pictograms	
Hazard Statements	H290, H351, H312, H302, H373, H319, H315, H317, H400 May be corrosive to metals. Suspected of causing cancer. Harmful in contact with skin. Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure. Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. Very toxic to aquatic life.
Precautionary Statements	P210, P220, P221, P280 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.

### 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.

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