

2-CHLORO-5-CYANOBENZENE-1-SULFONYL CHLORIDE

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Compilation date: 01/10/2018

Revision date: 12/10/2018

Revision No: 2

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

# 1.1. Product identifier

Product name: 2-CHLORO-5-CYANOBENZENE-1-SULFONYL CHLORIDE

CAS number: 942199-56-6

Product code: OR931550

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

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

Company name: Apollo Scientific Ltd Units 3 & 4 Parkway Denton Manchester M34 3SG UK Tel: 0161 337 9971 Fax: 0161 336 6932 Email: david.tideswell@apolloscientific.co.uk

## 1.4. Emergency telephone number

Emergency tel: -

# Section 2: Hazards identification

# 2.1. Classification of the substance or mixture

Classification under CLP:	Acute Tox. 4: H302+H312+H332; Skin Corr. 1B: H314
Most important adverse effects:	Harmful if swallowed, in contact with skin or if inhaled Causes severe skin burns and
	eve damage.

#### 2.2. Label elements

Label elements:

Hazard statements: H302+H312+H332: Harmful if swallowed, in contact with skin or if inhaled

H314: Causes severe skin burns and eye damage.

Hazard pictograms: GHS05: Corrosion

GHS07: Exclamation mark



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 Signal words:
 Danger

 Precautionary statements:
 P301+P312: IF SWALLOWED: Call a POISON CENTER if you feel unwell.

 P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

 P302+P352: IF ON SKIN: Wash with plenty of water.

# 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

# Section 3: Composition/information on ingredients

#### 3.1. Substances

#### Chemical identity: 2-CHLORO-5-CYANOBENZENE-1-SULFONYL CHLORIDE

CAS number: 942199-56-6

# Section 4: First aid measures

4.1. Description of first aid measures	
Skin contact:	Remove all contaminated clothes and footwear immediately unless stuck to skin.
	Drench the affected skin with running water for 10 minutes or longer if substance is still
	on skin. Transfer to hospital if there are burns or symptoms of poisoning.
Eye contact:	Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist
	examination.
Ingestion:	Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10
	minutes. If unconscious, check for breathing and apply artificial respiration if necessary.
	If unconscious and breathing is OK, place in the recovery position. Transfer to hospital
	as soon as possible.
Inhalation:	Remove casualty from exposure ensuring one's own safety whilst doing so. If
	unconscious and breathing is OK, place in the recovery position. If conscious, ensure
	the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and
	provide oxygen if available. Transfer to hospital as soon as possible.
4.2. Most important symptoms	and effects, both acute and delayed
Skin contact:	Blistering may occur. Progressive ulceration will occur if treatment is not immediate.
Eye contact:	Corneal burns may occur. May cause permanent damage.
Ingestion:	Corrosive burns may appear around the lips. Blood may be vomited. There may be
	bleeding from the mouth or nose.
Inhalation:	There may be shortness of breath with a burning sensation in the throat. Exposure may
	cause coughing or wheezing.
4.3. Indication of any immediat	e medical attention and special treatment needed

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

# Section 5: Fire-fighting measures

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5.1. Extinguishing media			
Extinguishing media:	Carbon dioxide, dry chemical powder, foam. Suitable extinguishing media for the		
	surrounding fire should be used. Use water spray to cool containers.		
5.2. Special hazards arising fro	om the substance or mixture		
Exposure hazards:	Corrosive. In combustion emits toxic fumes of carbon dioxide / carbon monoxide.		
	Nitrogen oxides (NOx). Sulphur oxides (SOx). Hydrogen chloride (HCl).		
5.3. Advice for fire-fighters			
Advice for fire-fighters:	Wear self-contained breathing apparatus. Wear protective clothing to prevent contact		
Advice for fire lighters.	with skin and eyes.		
ction 6: Accidental release	·		_
			_
6.1. Personal precautions, prot	tective equipment and emergency procedures		
Personal precautions:	Notify the police and fire brigade immediately. If outside keep bystanders upwind and		
	away from danger point. Mark out the contaminated area with signs and prevent access		
	to unauthorised personnel. Do not attempt to take action without suitable protective		
	clothing - see section 8 of SDS. Do not create dust.		
6.2. Environmental precautions	S		
Environmental precautions:	Do not discharge into drains or rivers.		
6.3. Methods and material for c	containment and cleaning up		
Clean-up procedures:	Clean-up should be dealt with only by qualified personnel familiar with the specific		
	substance. Transfer to a closable, labelled salvage container for disposal by an		
	appropriate method.		
6.4. Reference to other section	IS		
ction 7: Handling and storage	ge		
7.1. Precautions for safe handl	ing		_
Handling requirements:	Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.		
	Do not handle in a confined space. Avoid the formation or spread of dust in the air. Only		
	use in fume hood.		
7.2. Conditions for safe storag	e, including any incompatibilities		
Storage conditions:	Store in a cool, well ventilated area. Keep container tightly closed. Moisture sensitive.		
	Store under Argon. Recommended storage temp 2-8 °C.		
Suitable packaging:	Must only be kept in original packaging.		
7.3. Specific end use(s)			
Specific end use(s):	No data available.		

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# Section 8: Exposure controls/personal protection 8.1. Control parameters Workplace exposure limits: No data available. **DNEL/PNEC** Values DNEL / PNEC No data available. 8.2. Exposure controls Engineering measures: Ensure there is sufficient ventilation of the area. Respiratory protection: Self-contained breathing apparatus must be available in case of emergency. Respiratory protective device with particle filter. Hand protection: Protective gloves. Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand. Skin protection: Protective clothing. Section 9: Physical and chemical properties 9.1. Information on basic physical and chemical properties State: Powder Colour: Pale orange Evaporation rate: No data available. Oxidising: No data available. Solubility in water: No data available. Viscosity: No data available. Boiling point/range ℃: No data available. Melting point/range °C: No data available. Flammability limits %: lower: No data available. upper: No data available.

Part.coeff. n-octanol/water: No data available.

Vapour pressure: No data available.

pH: No data available.

## 9.2. Other information

Other information: No data available.

Flash point °C: No data available.

Autoflammability°C: No data available.

Relative density: No data available.

VOC q/I: No data available.

#### Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

## 10.2. Chemical stability

Chemical stability: Stable under normal conditions.

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#### 10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

#### 10.4. Conditions to avoid

Conditions to avoid: Heat. Moist air. Humidity.

#### 10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

# 10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

#### Section 11: Toxicological information

#### 11.1. Information on toxicological effects

#### **Relevant hazards for product:**

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	INH DRM ING	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated

#### Symptoms / routes of exposure

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

**Ingestion:** Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

**Inhalation:** There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

#### Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

# 12.2. Persistence and degradability

Persistence and degradability: No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: No data available.

# 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

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12.6. Other adverse effects			
Other adverse effects:	No data available.		
Section 13: Disposal considera	ations		
13.1. Waste treatment methods			
Disposal operations:	Transfer to a suitable container and arrange for collection by specialised disposal company. MATERIAL SHOULD BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS		
	Dispose of as special waste in compliance with local and national regulations Observe all federal, state and local environmental regulations. The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.		
Section 14: Transport informat	ion		
14.1. UN number			
UN number:	UN1759		
14.2. UN proper shipping name			
	CORROSIVE SOLID, N.O.S.		
14.3. Transport hazard class(es	\$)		
Transport class:	8		
14.4. Packing group			
Packing group:	III		
14.5. Environmental hazards			
Environmentally hazardous:	No Marine pollutant: No		
14.6. Special precautions for us	ser		
Tunnel code:	E		
Transport category:	3		
Section 15: Regulatory informa	ition		
15.1. Safety, health and enviror	mental regulations/legislation specific for the substance or mixture		
Specific regulations:	Not applicable.		
15.2. Chemical Safety Assessm	ent		
Chemical safety assessment:	A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.		
Continue 16: Other information			
Section 16: Other information			

# 2-CHLORO-5-CYANOBENZENE-1-SULFONYL CHLORIDE

Other information	
Other information:	This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.
	* Data predicted using computational software. The OECD QSAR-Toolbox for grouping
	chemicals into categories. Developed by LMC bulgaria.
	http://echa.europa.eu/support/oecd-qsar-toolbox
	~ Data predicted using computational software ACD/ToxSuite v 2.95.1 Copyright 1994-
	2009 ACD/labs, Copyright 2001-2009 Pharma Algorithms, Inc, Advanced Chemistry
	Development, Inc (ACD/Labs). http://www.acdlabs.com/products/pc_admet/tox/tox/
Phrases used in s.2 and s.3:	H302+H312+H332: Harmful if swallowed, in contact with skin or if inhaled
	H314: Causes severe skin burns and eye damage.
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	by those who have been fully trained in safety, laboratory and chemical handling
	procedures. The above information is believed to be correct to the best of our
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