

## SAFETY DATA SHEET

Creation Date 12-May-2011

Revision Date 23-January-2018

Revision Number 5

### 1. Identification

**Product Name** (S)-1-(4-Chlorophenyl)ethylamine  
**Cat No. :** AC444110000; AC444110010; AC444110050; AC444110250  
**CAS-No** 4187-56-8  
**Synonyms** No information available  
**Recommended Use** Laboratory chemicals.  
**Uses advised against** Not for food, drug, pesticide or biocidal product use

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

##### Company

##### **Importer/Distributor**

Fisher Scientific  
112 Colonnade Road,  
Ottawa, ON K2E 7L6,  
Canada  
Tel: 1-800-234-7437

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

##### **Manufacturer**

Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

##### **Emergency Telephone Number**

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99

**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

##### **WHMIS 2015 Classification**

Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

<b>Acute oral toxicity</b>	Category 4
<b>Acute Inhalation Toxicity</b>	Category 2
<b>Skin Corrosion/Irritation</b>	Category 2
<b>Serious Eye Damage/Eye Irritation</b>	Category 1
<b>Skin Sensitization</b>	Category 1

#### Label Elements

##### **Signal Word**

Danger

##### **Hazard Statements**

Harmful if swallowed

Fatal if inhaled

Causes skin irritation

May cause an allergic skin reaction

Causes serious eye damage



**Precautionary Statements**

**Prevention**

Do not breathe dust/fumes/gas/mist/vapours/spray  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Use only outdoors or in a well-ventilated area  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves/protective clothing/eye protection/face protection  
Wear respiratory protection

**Response**

IF ON SKIN: Wash with plenty of soap and water  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a POISON CENTER/doctor  
Rinse mouth  
Take off contaminated clothing

**Storage**

Store in a well-ventilated place. Keep container tightly closed  
Store locked up

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Toxic to aquatic life with long lasting effects

**3. Composition/Information on Ingredients**

Component	CAS-No	Weight %
(S)-1-(4-Chlorophenyl)ethylamine	4187-56-8	95

**4. First-aid measures**

<b>General Advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.
<b>Inhalation</b>	Move to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. If not breathing, give artificial respiration.
<b>Ingestion</b>	Do not induce vomiting. Call a physician or Poison Control Center immediately.
<b>Most important symptoms/effects</b>	Causes severe eye damage. May cause allergic skin reaction. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe

damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing  
Treat symptomatically

Notes to Physician

5. Fire-fighting measures

**Suitable Extinguishing Media** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable Extinguishing Media** No information available

**Flash Point** 115 °C / 239 °F

**Method -** No information available

**Autoignition Temperature** 370 °C / 698 °F

**Explosion Limits**

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

**Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**

Hydrogen chloride gas Nitrogen oxides (NOx) Carbon monoxide (CO) Carbon dioxide (CO<sub>2</sub>)

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

**NFPA**

Health	Flammability	Instability	Physical hazards
3	0	0	N/A

6. Accidental release measures

**Personal Precautions** Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Avoid contact with skin, eyes and inhalation of vapors.

**Environmental Precautions** Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up** Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and storage

**Handling** Use only under a chemical fume hood. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Do not breathe vapors or spray mist. Do not ingest.

**Storage** Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Corrosives area. Keep under nitrogen.

8. Exposure controls / personal protection

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering Measures**

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

**Personal protective equipment**

**Eye Protection** Goggles  
**Hand Protection** Protective gloves

Glove material	Breakthrough time	Glove thickness	Glove comments
Natural rubber	See manufacturers recommendations	-	Splash protection only
Nitrile rubber			
Neoprene			
PVC			

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

**Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Recommended Filter type:** Particulates filter conforming to EN 143 Ammonia and organic ammonia derivatives filter Type K Green conforming to EN14387

When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls**

Prevent product from entering drains. Do not allow material to contaminate ground water system.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

**9. Physical and chemical properties**

<b>Physical State</b>	Liquid
<b>Appearance</b>	Light yellow
<b>Odor</b>	pungent
<b>Odor Threshold</b>	No information available
<b>pH</b>	10.9
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	232 °C / 449.6 °F @ 760 mmHg
<b>Flash Point</b>	115 °C / 239 °F
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid,gas)</b>	Not applicable
<b>Flammability or explosive limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Vapor Pressure</b>	1 mbar @ 50°C
<b>Vapor Density</b>	No information available
<b>Specific Gravity</b>	1.115
<b>Solubility</b>	No information available
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	370 °C / 698 °F

Decomposition Temperature 275 °C  
 Viscosity No information available  
 Molecular Formula C8 H10 Cl N  
 Molecular Weight 155.63

### 10. Stability and reactivity

**Reactive Hazard** None known, based on information available  
**Stability** Stable under normal conditions.  
**Conditions to Avoid** Incompatible products.  
**Incompatible Materials** Strong oxidizing agents, Acids  
**Hazardous Decomposition Products** Hydrogen chloride gas, Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)  
**Hazardous Polymerization** No information available.  
**Hazardous Reactions** None under normal processing.

### 11. Toxicological information

#### Acute Toxicity

#### Product Information Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
(S)-1-(4-Chlorophenyl)ethylamine	300-500 mg/kg (Rat)	Not listed	630-2160 mg/m <sup>3</sup> /4h (Rat)

**Toxicologically Synergistic Products** No information available

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Irritation** Causes severe eye burns Irritating to skin  
**Sensitization** No information available  
**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
(S)-1-(4-Chlorophenyl)ethylamine	4187-56-8	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects** Not mutagenic in AMES Test

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known  
**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**12. Ecological information**

**Ecotoxicity**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
(S)-1-(4-Chlorophenyl)ethylamine	Not listed	LC50: 37.8 mg/L/96h (Pimephales Promelas)	Not listed	EC50: 1.9 mg/L/48h

**Persistence and Degradability** Persistence is unlikely

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Is not likely mobile in the environment due its low water solubility. Will likely be mobile in the environment due to its water solubility.

Component	log Pow
(S)-1-(4-Chlorophenyl)ethylamine	1.67

**13. Disposal considerations**

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

**14. Transport information**

**DOT**

UN-No UN2810  
 Proper Shipping Name Toxic liquid, organic, n.o.s  
 Proper technical name (S)-1-(4-Chlorophenyl)ethylamine  
 Hazard Class 6.1  
 Packing Group II

**TDG**

UN-No UN2810  
 Proper Shipping Name TOXIC LIQUID, ORGANIC, N.O.S.  
 Hazard Class 6.1  
 Packing Group II

**IATA**

UN-No UN2810  
 Proper Shipping Name TOXIC LIQUID, ORGANIC, N.O.S.  
 Hazard Class 6.1  
 Packing Group II

**IMDG/IMO**

UN-No UN2810  
 Proper Shipping Name TOXIC LIQUID, ORGANIC, N.O.S.  
 Hazard Class 6.1  
 Packing Group II

**15. Regulatory information**

All of the components in the product are on the following Inventory lists: X = listed

**International Inventories**

**Canada**

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

## 16. Other information

<b>Prepared By</b>	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com
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<b>Revision Date</b>	23-January-2018
<b>Print Date</b>	23-January-2018
<b>Revision Summary</b>	This document has been updated to comply with the requirements of WHMIS 2015 to align with the Globally Harmonised System (GHS) for the Classification and Labelling of Chemicals.

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**