# SAFETY DATA SHEET

Version 6.1 Revision Date 07/17/2018 Print Date 11/20/2018

### 1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : (<I>S</>)-2-Aminohexane

Product Number : 727172 Brand : Aldrich

CAS-No. : 70492-67-0

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

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.

3050 Spruce Street ST. LOUIS MO 63103 UNITED STATES

Telephone : +1 314 771-5765 Fax : +1 800 325-5052

1.4 Emergency telephone number

Emergency Phone # : (314) 776-6555

### 2. HAZARDS IDENTIFICATION

## 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225

Acute toxicity, Oral (Category 4), H302

Skin corrosion (Category 1B), H314

Serious eye damage (Category 1), H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

Aldrich- 727172

Precautionary statement(s)		
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.	
P233	Keep container tightly closed.	
P240	Ground/bond container and receiving equipment.	
P241	Use explosion-proof electrical/ ventilating/ lighting equipment.	
P242	Use only non-sparking tools.	
P243	Take precautionary measures against static discharge.	
P264	Wash skin thoroughly after handling.	
P270	Do not eat, drink or smoke when using this product.	
P280	Wear protective gloves/ protective clothing/ eye protection/ face	
	protection.	
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.	
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.	
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated	
	clothing. Rinse skin with water/ shower.	
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position	
	comfortable for breathing.	
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove	
	contact lenses, if present and easy to do. Continue rinsing.	
P310	Immediately call a POISON CENTER/doctor.	
P321	Specific treatment (see supplemental first aid instructions on this label).	
P363	Wash contaminated clothing before reuse.	
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for	
D400 : D005	extinction.	
P403 + P235	Store in a well-ventilated place. Keep cool.	
P405	Store locked up.	
P501	Dispose of contents/ container to an approved waste disposal plant.	

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

# 3.1 Substances

# Hazardous components

Component	Classification	Concentration
2-Hexanamine, (S)-		
	Flam. Liq. 2; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1;	<= 100 %
	H225, H302, H314	

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

# 4.1 Description of first aid measures

# General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

# In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

Aldrich-727172 Page 2 of 7

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

### 5. FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

## Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemica as far as possible. Use very large quantities (flooding) of water applied ineffective. Cool all affected containers with flooding quantities of wat

## 5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NOx)

## 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### 5.4 Further information

Use water spray to cool unopened containers.

#### **6. ACCIDENTAL RELEASE MEASURES**

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

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

## 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

# 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

#### 6.4 Reference to other sections

For disposal see section 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

# 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Sensitive to carbon dioxide Handle and store under inert gas.

Storage class (TRGS 510): 3: Flammable liquids

## 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Aldrich- 727172 Page 3 of 7

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

## Components with workplace control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## Personal protective equipment

## Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### **Body Protection**

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

# **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

# Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

# 9.1 Information on basic physical and chemical properties

a) Appearance Form: clear, liquid Colour: colourless
b) Odour No data available
c) Odour Threshold No data available
d) pH No data available
e) Melting point/freezing point
f) Initial boiling point and boiling range ()No data available

g) Flash point -3 °C (27 °F)
 h) Evaporation rate No data available
 i) Flammability (solid, gas) No data available
 j) Upper/lower No data available flammability or explosive limits

k) Vapour pressure No data available
l) Vapour density No data available
m) Relative density No data available
n) Water solubility No data available

o) Partition coefficient: n- Pow: 1.656

Aldrich- 727172 Page 4 of 7

octanol/water

p) Auto-ignition temperature

No data available

q) Decomposition temperature

No data available

r) Viscosity No data available
 s) Explosive properties No data available
 t) Oxidizing properties No data available

# 9.2 Other safety information

No data available

#### 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

## 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Vapours may form explosive mixture with air.

## 10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

### 10.5 Incompatible materials

Acids, Strong oxidizing agents

## 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)

Other decomposition products - No data available

In the event of fire: see section 5

## 11. TOXICOLOGICAL INFORMATION

## 11.1 Information on toxicological effects

## **Acute toxicity**

No data available

Inhalation: No data available Dermal: No data available

No data available

### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

## Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

No data available

# Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a

carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a

Aldrich- 727172

known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's

list of regulated carcinogens.

Reproductive toxicity

No data available No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

**Aspiration hazard** 

No data available

**Additional Information** 

RTECS: Not available

## 12. ECOLOGICAL INFORMATION

## 12.1 Toxicity

No data available

### 12.2 Persistence and degradability

No data available

## 12.3 Bioaccumulative potential

No data available

#### 12.4 Mobility in soil

No data available(2-Hexanamine, (S)-)

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### 12.6 Other adverse effects

No data available

#### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

#### **Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

## Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

# DOT (US)

UN number: 2733 Class: 3 (8) Packing group: I

Proper shipping name: Amines, flammable, corrosive, n.o.s. (2-Hexanamine, (S)-)

Poison Inhalation Hazard: No

#### **IMDG**

UN number: 2733 Class: 3 (8) Packing group: I EMS-No: F-E, S-C Proper shipping name: AMINES, FLAMMABLE, CORROSIVE, N.O.S. (2-Hexanamine, (S)-)

Aldrich- 727172 Page 6 of 7

#### **IATA**

UN number: 2733 Class: 3 (8) Packing group: I

Proper shipping name: Amines, flammable, corrosive, n.o.s. (2-Hexanamine, (S)-)

ALL INNER PACKAGINGS MUST BE PACKED WITH ABSORBANT MATERIAL IN TIGHTLY CLOSED METAL OR RIGID PLASTIC RECEPTACLES

### 15. REGULATORY INFORMATION

#### **SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### **SARA 313 Components**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

## SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

### **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

## Pennsylvania Right To Know Components

CAS-No.

2-Hexanamine, (S)- 70492-67-0

**New Jersey Right To Know Components** 

CAS-No. Revision Date

**Revision Date** 

2-Hexanamine, (S)- 70492-67-0

## California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

# **16. OTHER INFORMATION**

# Full text of H-Statements referred to under sections 2 and 3.

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

## **Further information**

Copyright 2016 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

## **Preparation Information**

Sigma-Aldrich Corporation Product Safety – Americas Region 1-800-521-8956

Version: 6.1 Revision Date: 07/17/2018 Print Date: 11/20/2018

Aldrich- 727172 Page 7 of 7