# SAFETY DATA SHEET

Version 5.1 Revision Date 06/25/2014 Print Date 11/15/2018

# 1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : 1.1.1.2.2.3.3.4.4-Nonafluoro-6-iodohexane

Product Number : 07387

Brand : Sigma-Aldrich

CAS-No. : 2043-55-2

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich

3050 Spruce Street SAINT LOUIS MO 63103

USA

Telephone : +1 800-325-5832 Fax : +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone # : +1-703-527-3887 (CHEMTREC)

# 2. HAZARDS IDENTIFICATION

# 2.1 Classification of the substance or mixture

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

Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

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

# 2.2 GHS Label elements, including precautionary statements

Pictogram

**①** 

Signal word Warning

Hazard statement(s)

H315 Causes skin irritation.

H319 Causes serious eye irritation. H335 May cause respiratory irritation.

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ eye protection/ face protection.
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.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

Sigma-Aldrich - 07387 Page 1 of 7

contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/ physician if you feel unwell.

Specific treatment (see supplemental first aid instructions on this label). P321 If skin irritation occurs: Get medical advice/ attention. P332 + P313

If eye irritation persists: Get medical advice/ attention. P337 + P313 Take off contaminated clothing and wash before reuse. P362 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

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**

P312

: 1H,1H,2H,2H-Perfluorohexyl iodide Synonyms

Formula  $C_6H_4F_9I$ 373.99 g/mol Molecular Weight 2043-55-2 CAS-No. EC-No. 218-055-6

**Hazardous components** 

Component	Classification	Concentration
1,1,1,2,2,3,3,4,4-Nonafluoro-6-iodohexane		
	Skin Irrit. 2; Eye Irrit. 2A;	-
	STOT SE 3; H315, H319,	
	H335	

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

Wash off with soap and plenty of water. Consult a physician.

# In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

### If swallowed

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

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

no data available

## 5. FIREFIGHTING MEASURES

#### 5.1 **Extinguishing media**

## Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Sigma-Aldrich - 07387 Page 2 of 7

## 5.2 Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen fluoride, Hydrogen iodide

## 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

#### 5.4 Further information

no data available

# 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. Evacuate personnel to safe areas.

For personal protection see section 8.

## 6.2 Environmental precautions

Do not let product enter drains.

# 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

# 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.

Normal measures for preventive fire protection.

For precautions see section 2.2.

#### 7.2 Conditions for safe storage, including any incompatibilities

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.

Recommended storage temperature: 2 - 8 °C

Light sensitive.

#### 7.3 Specific end use(s)

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

#### 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

Safety glasses with side-shields conforming to EN166 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.

Sigma-Aldrich - 07387 Page 3 of 7

## **Body Protection**

impervious 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 multipurpose 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

Do not let product enter drains.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties 9.1

Form: liquid a) Appearance

Colour: light red

no data available b) Odour c) Odour Threshold no data available no data available

Melting point/freezing

no data available

Initial boiling point and

138 - 140 °C (280 - 284 °F) at 1,013 hPa (760 mmHg)

boiling range g) Flash point no data available h) Evapouration rate

no data available

Flammability (solid, gas) no data available Upper/lower

flammability or explosive limits no data available

k) Vapour pressure no data available Vapour density no data available

m) Relative density 1.94 g/mL at 20 °C (68 °F)

n) Water solubility Partition coefficient: noctanol/water

no data available no data available

Auto-ignition temperature

no data available

Decomposition temperature

no data available

Viscosity no data available s) Explosive properties no data available Oxidizing properties no data available

#### 9.2 Other safety information

no data available

# 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

no data available

Sigma-Aldrich - 07387 Page 4 of 7

#### 10.2 Chemical stability

Stable under recommended storage conditions.

# 10.3 Possibility of hazardous reactions

no data available

#### 10.4 Conditions to avoid

no data available

# 10.5 Incompatible materials

Strong acids

# 10.6 Hazardous decomposition products

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

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

known or anticipated carcinogen by NTP.

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

carcinogen or potential carcinogen by OSHA.

## Reproductive toxicity

no data available

no data available

# Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

# Specific target organ toxicity - repeated exposure

no data available

# **Aspiration hazard**

no data available

## **Additional Information**

RTECS: Not available

Sigma-Aldrich - 07387 Page 5 of 7

#### 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

## 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**

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)

Not dangerous goods

#### **IMDG**

Not dangerous goods

#### **IATA**

Not dangerous goods

## 15. REGULATORY INFORMATION

# **SARA 302 Components**

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

## **SARA 313 Components**

SARA 313: 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

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. Revision Date 1,1,1,2,2,3,3,4,4-Nonafluoro-6-iodohexane 2043-55-2

## **New Jersey Right To Know Components**

CAS-No. Revision Date 1,1,1,2,2,3,3,4,4-Nonafluoro-6-iodohexane 2043-55-2

## California Prop. 65 Components

Sigma-Aldrich - 07387 Page 6 of 7

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.

Eye Irrit. Eye irritation

H315 Causes skin irritation.

H319 Causes serious eye irritation. H335 May cause respiratory irritation.

Skin Irrit. Skin irritation

STOT SE Specific target organ toxicity - single exposure

## **HMIS Rating**

Health hazard: 2
Chronic Health Hazard:
Flammability: 0
Physical Hazard 0

## **NFPA Rating**

Health hazard: 2
Fire Hazard: 0
Reactivity Hazard: 0

#### **Further information**

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# **Preparation Information**

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

Version: 5.1 Revision Date: 06/25/2014 Print Date: 11/15/2018

Sigma-Aldrich - 07387 Page 7 of 7