

### SECTION 1: Identification

#### 1.1. Identification

Product form : Substance  
 Substance name : Heptafluoro-2-iodopropane  
 CAS No : 677-69-0  
 Product code : SG-1001-03238  
 Formula : C3F7I  
 Other means of identification : 1,1,1,2,3,3,3-Heptafluoro-2-iodopropane  
 2-Iodoperfluoropropane  
 Perfluoroisopropyl iodide  
 Heptafluoroisopropyl iodide

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

Use of the substance/mixture : Laboratory chemicals  
 Semiconductors

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

Air Liquide  
 9811 Katy Freeway, Suite 100  
 Houston, TX 77024 - USA  
 T 1-800-819-1704  
[www.us.airliquide.com](http://www.us.airliquide.com)

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

|                               |        |                                  |
|-------------------------------|--------|----------------------------------|
| Acute Tox. 4 (Inhalation:gas) | H332 - | Harmful if inhaled               |
| Skin Irrit. 2                 | H315 - | Causes skin irritation           |
| Eye Irrit. 2A                 | H319 - | Causes serious eye irritation    |
| STOT SE 3                     | H335 - | May cause respiratory irritation |

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H315 - Causes skin irritation  
 H319 - Causes serious eye irritation  
 H332 - Harmful if inhaled  
 H335 - May cause respiratory irritation

Precautionary statements (GHS-US) : P202 - Do not handle until all safety precautions have been read and understood  
 P261 - Avoid breathing mist, vapors  
 P271 - Use only outdoors or in a well-ventilated area  
 P280 - Wear eye protection, face protection, protective gloves, protective clothing  
 P302+P352 - If on skin: Wash with plenty of water  
 P304+P340 - If inhaled: Remove person to fresh air and keep 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  
 P308+P313 - If exposed or concerned: Get medical advice/attention  
 P362 - Take off contaminated clothing and wash it before reuse  
 P403 - Store in a well-ventilated place  
 P405 - Store locked up  
 P501 - Dispose of contents/container in accordance with local/regional/national/international

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regulations

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substance

| Name                                            | Product identifier | %    | GHS-US classification                                                                                   |
|-------------------------------------------------|--------------------|------|---------------------------------------------------------------------------------------------------------|
| Heptafluoro-2-iodopropane<br>(Main constituent) | (CAS No) 677-69-0  | > 99 | Acute Tox. 4 (Inhalation:gas),<br>H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2A, H319<br>STOT SE 3, H335 |

Full text of H-phrases: see section 16

### 3.2. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
- First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs, seek medical attention.
- First-aid measures after ingestion : Rinse mouth with water. Get medical advice/attention.

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

- Symptoms/injuries after inhalation : Harmful if inhaled. May cause respiratory irritation.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes serious eye irritation.
- Symptoms/injuries after ingestion : Ingestion of this product may be harmful.
- Symptoms/injuries upon intravenous administration : Not known.
- Chronic symptoms : Adverse effects not expected from this product.

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

If you feel unwell, seek medical advice. If breathing is difficult, give oxygen.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Do not use water jet to extinguish.

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

- Fire hazard : The product is not flammable.
- Explosion hazard : Product is not explosive. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
- Reactivity : None known.

### 5.3. Advice for firefighters

- Firefighting instructions : In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Standard protective clothing and equipment (e.g., Self Contained Breathing Apparatus) for fire fighters. Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

- General measures : Ensure adequate ventilation.

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### 6.1.1. For non-emergency personnel

- |                      |                                                                                                                                                                                        |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective equipment | : Wear protective equipment consistent with the site emergency plan.                                                                                                                   |
| Emergency procedures | : Escape the danger area by the closest safe route. Close doors and windows of adjacent premises. Keep containers closed. Mark the danger area. Seal off low-lying areas. Keep upwind. |

### 6.1.2. For emergency responders

- |                      |                                                                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective equipment | : Standard protective clothing and equipment (e.g., Self Contained Breathing Apparatus) for fire fighters. Equip cleanup crew with proper protection. |
| Emergency procedures | : Evacuate and limit access. Ventilate area.                                                                                                          |

### 6.2. Environmental precautions

Try to stop release if safe to do so.

### 6.3. Methods and material for containment and cleaning up

- |                         |                                                                                                                                          |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| For containment         | : Try to stop release if safe to do so. Contain and collect spillages with non-combustible absorbent materials, e.g. vermiculite & sand. |
| Methods for cleaning up | : Dispose of this material and its container in accordance with local regulations.                                                       |

### 6.4. Reference to other sections

See also Sections 8 and 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- |                               |                                                                                                                             |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | : Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. |
| Hygiene measures              | : Do not eat, drink or smoke when using this product.                                                                       |

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

- |                        |                                                                                                                            |
|------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Technical measures     | : Comply with applicable regulations.                                                                                      |
| Storage conditions     | : Keep container closed when not in use. Keep cool. Store in well ventilated area. Store locked up. Protect from sunlight. |
| Incompatible products  | : None known.                                                                                                              |
| Incompatible materials | : None known.                                                                                                              |

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

- |                                  |                                                                                                                                                                               |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appropriate engineering controls | : Ensure exposure is below occupational exposure limits. Provide adequate general and local exhaust ventilation. Consider work permit system e.g. for maintenance activities. |
| Hand protection                  | : 29 CFR 1910.138: Hand Protection. Wear chemically resistant protective gloves.                                                                                              |
| Eye protection                   | : Wear safety glasses with side shields. 29 CFR 1910.133: Eye and Face Protection.                                                                                            |
| Skin and body protection         | : Wear suitable protective clothing, e.g. - lab coats, coveralls or flame resistant clothing.                                                                                 |
| Respiratory protection           | : None necessary during normal and routine operations. See Sections 5 & 6.                                                                                                    |
| Thermal hazard protection        | : None necessary during normal and routine operations.                                                                                                                        |
| Environmental exposure controls  | : Refer to local regulations for restrictions on release of emissions to the atmosphere. For further information refer to section 13.                                         |
| Other information                | : Wear safety shoes while handling containers. 29 CFR 1910.136: Foot Protection.                                                                                              |

## SECTION 9: Physical and chemical properties

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

- |                |                     |
|----------------|---------------------|
| Physical state | : Liquid            |
| Color          | : No data available |
| Odor           | : No data available |
| Odor threshold | : No data available |
| pH             | : No data available |
| Melting point  | : No data available |

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|                                             |                                   |
|---------------------------------------------|-----------------------------------|
| Freezing point                              | : No data available               |
| Boiling point                               | : 311 °K                          |
| Flash point                                 | : Not applicable - not flammable  |
| Relative evaporation rate (butyl acetate=1) | : No data available               |
| Flammability (solid, gas)                   | : See Section 2.1 and 2.2         |
| Explosion limits                            | : Not applicable - not flammable  |
| Explosive properties                        | : Not applicable - not flammable. |
| Oxidizing properties                        | : None.                           |
| Vapor pressure                              | : 368.1 mm Hg 20 C                |
| Relative density                            | : 2.08 g/cm3 at 25 C              |
| Relative vapor density at 20 °C             | : No data available               |
| Molecular mass                              | : 295.93 g/mol                    |
| Relative gas density                        | : Heavier than air                |
| Solubility                                  | : No data available               |
| Log Pow                                     | : No data available               |
| Auto-ignition temperature                   | : No data available               |
| Decomposition temperature                   | : No data available               |
| Viscosity                                   | : No data available               |
| Viscosity, kinematic                        | : No data available               |
| Viscosity, dynamic                          | : No data available               |

### 9.2. Other information

|                        |                                                                                                          |
|------------------------|----------------------------------------------------------------------------------------------------------|
| Additional information | : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level. |
|------------------------|----------------------------------------------------------------------------------------------------------|

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

None known.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Light.

### 10.5. Incompatible materials

Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                |                                       |
|----------------|---------------------------------------|
| Acute toxicity | : Inhalation:gas: Harmful if inhaled. |
|----------------|---------------------------------------|

| Heptafluoro-2-iodopropane (677-69-0)             |                                     |
|--------------------------------------------------|-------------------------------------|
| ATE US (gases)                                   | 4500.000 ppmV/4h                    |
| Skin corrosion/irritation                        | : Causes skin irritation.           |
| Serious eye damage/irritation                    | : Causes serious eye irritation.    |
| Respiratory or skin sensitization                | : Not classified                    |
| Germ cell mutagenicity                           | : Not classified                    |
| Carcinogenicity                                  | : Not classified                    |
| Reproductive toxicity                            | : Not classified                    |
| Specific target organ toxicity (single exposure) | : May cause respiratory irritation. |

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|                                                    |                                                         |
|----------------------------------------------------|---------------------------------------------------------|
| Specific target organ toxicity (repeated exposure) | : Not classified                                        |
| Aspiration hazard                                  | : Not classified                                        |
| Symptoms/injuries after inhalation                 | : Harmful if inhaled. May cause respiratory irritation. |
| Symptoms/injuries after skin contact               | : Causes skin irritation.                               |
| Symptoms/injuries after eye contact                | : Causes serious eye irritation.                        |
| Symptoms/injuries after ingestion                  | : Ingestion of this product may be harmful.             |
| Symptoms/injuries upon intravenous administration  | : Not known.                                            |
| Chronic symptoms                                   | : Adverse effects not expected from this product.       |

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Effect on ozone layer : No known effects from this product.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

|                                |                                                                                                                |
|--------------------------------|----------------------------------------------------------------------------------------------------------------|
| Waste treatment methods        | : Contact supplier if guidance is required. Disposal through controlled incineration or authorized waste dump. |
| Waste disposal recommendations | : Dispose of contents/container in accordance with local/regional/national/international regulations.          |

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT  
Not regulated for transport

#### TDG

No additional information available

#### Transport by sea

No additional information available

#### Air transport

No additional information available

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

No additional information available

#### 15.2. International regulations

##### CANADA

No additional information available

##### EU-Regulations

No additional information available

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### National regulations

No additional information available

### 15.3. US State regulations

No additional information available

## SECTION 16: Other information

- Indication of changes : Revised safety data sheet in accordance with OSHA final rule on GHS implementation promulgated March 26, 2012.
- Other information : This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this product.

Full text of H-phrases:

|                               |                                                             |
|-------------------------------|-------------------------------------------------------------|
| Acute Tox. 4 (Inhalation:gas) | Acute toxicity (inhalation:gas) Category 4                  |
| Eye Irrit. 2A                 | Serious eye damage/eye irritation Category 2A               |
| Skin Irrit. 2                 | Skin corrosion/irritation Category 2                        |
| STOT SE 3                     | Specific target organ toxicity (single exposure) Category 3 |
| H315                          | Causes skin irritation                                      |
| H319                          | Causes serious eye irritation                               |
| H332                          | Harmful if inhaled                                          |
| H335                          | May cause respiratory irritation                            |

SDS US (GHS HazCom 2012)

*This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of Air Liquide America Corporation's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this product is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.*