

## Liquid Argon

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

**Product identifier****Trade name**

: Argon (refrigerated)

**SDS Nr**

: SDS\_003R\_CLP

**Chemical description**

: Argon

CAS No :007440-37-1

EC No :231-147-0

Index No :---

**Chemical formula**

: Ar

**Registration-No.**

: Listed in Annex IV / V REACH, exempted from registration.

**Use**

: Industrial and professional. Perform risk assessment prior to use.

:  
:

### Classification of the substance or mixture

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**Manufacturer / Distributor:****Ehsan International Gases**

40/9, Aurangabad, Nazimabad

#3, Karachi 74600, Pakistan.

+92 21 36612091 – 36612907

[info@ehsan.com.pk](mailto:info@ehsan.com.pk)[www.ehsan.com.pk](http://www.ehsan.com.pk)

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### 2 Hazards identification

**Hazard Class and Category Code****Regulation EC 1272/2008 (CLP)**

## Liquid Argon

• **Physical hazards** : Gases under pressure - Refrigerated liquefied gas - Warning (H281)

**Classification EC 67/548 or EC 1999/** : Not included in Annex VI.

**45** Not classified as dangerous preparation/substance.  
No EC labelling required.

### Label elements

**Labelling Regulation EC 1272/2008 (CLP)**

• **Hazard pictograms**

• **Hazard pictograms code** : GHS04

• **Signal word**: Warning

• **Hazard statements** : H281 : Contains refrigerated gas; may cause cryogenic burns or injury.

• **Precautionary statements**

- **Prevention** : P282 : Wear cold insulating gloves/face shield/eye protection.

- **Response** : P336+P315 : Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice / attention.

- **Storage** : P403 : Store in a well-ventilated place.

**Labelling EC 67/548 or EC 1999/45**

**Symbol(s)** : None.

**R Phrase(s)** : None.

**S Phrase(s)** : None.

### Other hazards

## 3 Composition/information on ingredients

**Other hazards** : Asphyxiant in high concentrations.

**Substance / Preparation** : Substance.

Substance name	Contents	CAS No	EC No	Index No	Registration no	Classification
Argon	100 %	7440-37-1	231-147-0	----	NOTE 1	-----

Press. Gas (H280)  
Press. Gas (H280)

Contains no other components or impurities which will influence the classification of the product. Note

1: Listed in Annex IV / V REACH, exempted from registration.

Note 2: Registration deadline not expired.

## Liquid Argon

### 4 First aid measures

Full text of R-phrases see chapter 16

#### First aid measures

- **Inhalation** : In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
- **Skin/eye contact** : Immediately flush eyes thoroughly with water for at least 15 minutes. In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance.

### 5 Fire-fighting measures

- **Ingestion** : Ingestion is not considered a potential route of exposure.

**Specific hazards** : Exposure to fire may cause containers to rupture/explode.

**Hazardous combustion products** : None.

#### Extinguishing media

- **Suitable extinguishing media** : All known extinguishants can be used.

**Specific methods** : If possible, stop flow of product.

Move away from the container and cool with water from a protected position. If leaking do not spray water onto container. Water surrounding area (from protected position) to contain fire.

**Special protective equipment for fire Fighters.** : In confined space use self-contained breathing apparatus.

### 6 Accidental release measures

## Liquid Argon

### 7 Handling and storage

- Personal precautions** : Evacuate area.  
Use protective clothing.  
Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.  
Ensure adequate air ventilation.
- Environmental precautions** : Try to stop release.  
Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
- Clean up methods** : Ventilate area.
- Handling** : Suck back of water into the container must be prevented.  
Do not allow backfeed into the container.  
Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Refer to supplier's container handling instructions.
- Storage** : Keep container below 50°C in a well ventilated place.

### 8 Exposure controls/personal protection

- Personal protection** : Ensure adequate ventilation.  
Protect eyes, face and skin from liquid splashes.

### 9 Physical and chemical properties

- Physical state at 20 °C** : Gas.
- Colour** : Colourless.
- Odour** : No odour warning properties.
- Molecular weight** : 40
- Melting point [°C]** : -189
- Boiling point [°C]** : -186
- Critical temperature [°C]** : -122
- Vapour pressure [20°C]** : Not applicable.

## Liquid Argon

Relative density, gas (air=1) : 1.38  
Relative density, liquid (water=1) : 1.4  
Solubility in water [mg/l] : 67  
Flammability range [vol% in air] : Non flammable.  
Other data : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

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### 11 Stability and reactivity

Stability and reactivity : Stable under normal conditions.  
Liquid spillages can cause embrittlement of structural materials.

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### 12 Toxicological information

Hazardous decomposition products : None.

Toxicity information : No known toxicological effects from this product.

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### 13 Ecological information

Ecological effects information: Can cause frost damage to vegetation.

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### 14 Disposal considerations

General : Do not discharge into any place where its accumulation could be dangerous.  
Contact supplier if guidance is required.

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### 15 Transport information

UN number : 1951

## Liquid Argon

• **Labelling ADR, IMDG, IATA** : 2.2 : Non flammable, non toxic gas.

### Land transport

**ADR/RID**

**H.I. nr** : 22

**UN proper shipping name** : ARGON, REFRIGERATED LIQUID

**Transport hazard class(es)** : 2

- **ADR/RID Classification code** : 3 A

- **Packing Instruction(s) - General** : P203

- **Tunnel Restriction** : C/E Tank carriage: Passage forbidden through tunnels of category C, D and E; Other carriage: Passage forbidden through tunnels of category E

### Sea transport

- **IMO-IMDG code**

• **Proper shipping name** : ARGON, REFRIGERATED LIQUID

• **Class** : 2.2

- **IMO Packing group** : P203

- **Emergency Schedule (EmS) - Fire** : F-C

- **Emergency Schedule (EmS) -** : S-V

**Spillage**

- **Instructions - Packing** : P203

### Air transport

- **ICAO/IATA**

- **Proper shipping name** : ARGON, REFRIGERATED LIQUID

• **Class** : 2.2

• **Passenger and Cargo Aircraft** :

- **Packing instruction** : 202

• **Cargo Aircraft only** :

- **Packing instruction** : 202

Avoid transport on vehicles where the load space is not separated from the driver's compartment.

Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.

Before transporting product containers :

- Ensure that containers are firmly secured.

- Ensure cylinder valve is closed and not leaking.

- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.

- Ensure valve protection device (where provided) is correctly fitted.

- Ensure there is adequate ventilation.

## Liquid Argon

### 16 Regulatory information

- Compliance with applicable regulations.

**Safety, health and environmental regulations/legislation specific for the substance or mixture** : Ensure all national/local regulations are observed.

**Seveso regulation 96/82/EC** : Not covered.

### 17 Other information

Asphyxiant in high concentrations.

Keep container in a well-ventilated place.

Do not breathe the gas.

May cause frostbite.

Wear suitable protective clothing.

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.

**DISCLAIMER OF LIABILITY**

: Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.