

Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

Printed 25.04.2018
Revision 25.04.2018 (GB) Version 6.0

Argon

3010, 3013



! SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Name of product	Argon Art-Nr(n): 3010, 3013
Name of substance	Argon
EC No	231-147-0
REACH registration number	-
CAS No	7440-37-1

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

Identified uses

Remark

It is not required to list the identified uses because the substance is exempted from the obligation to register according to REACH [Article 2 (7) in conjunction with Annex IV / V of the REACH-Regulation (EC) 1907/2006].

! Recommended intended purpose(s)

Cover gas.
Laboratory reagent.
Processing aid.

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor	GHC Gerling, Holz & Co. Handels GmbH Ruhrstraße 113, D-22761 Hamburg Phone +49 40 853 123-0, Fax +49 40 853 123-66 E-Mail hamburg@ghc.de Internet www.ghc.com
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Advice	GHC Gerling, Holz & Co. Handels GmbH Phone +49 40 853 123-0 Fax +49 40 853 123-66 E-mail (competent person): msds@ghc.de
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1.4. Emergency telephone number

Emergency advice	Giftinformationszentrum (Poison Control Centre) Mainz Phone +49 6131 19240
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Compr. Gas	H280
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Hazard statements for physical hazards

H280	Contains gas under pressure; may explode if heated.
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2.2. Label elements

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Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



GHS04

Signal word
Warning

Hazard statements for physical hazards
H280 Contains gas under pressure; may explode if heated.

Precautionary Statements

Storage
P403 Store in a well-ventilated place.

2.3. Other hazards
Adverse human health effects and symptoms
Asphyxiant in high concentrations.

! Information pertaining to special dangers for human and environment
Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.
Receptacle under pressure.

! Results of PBT and vPvB assessment
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

! SECTION 3: Composition/ information on ingredients

3.1. Substances

! Description
Content: > 99 %

CAS No 7440-37-1 **Argon**
EC No 231-147-0
REACH registration number -

! Additional advice
The substance does not require registration according to Article 2 (7) in conjunction with Annex IV / V of the Regulation (EC) No 1907/2006 [REACH].
The text of the H-and EUH-phrases is shown in section 16.

3.2. Mixtures
not applicable

! SECTION 4: First aid measures

4.1. Description of first aid measures
General information
Adhere to personal protective measures when giving first aid.

! In case of inhalation
Remove the casualty into fresh air, keep warm and allow to rest.
Seek medical advice immediately.
In case of respiratory standstill give artificial respiration by respiratory bag (Ambu bag) or respirator. Send for a doctor.

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In case of skin contact

No special actions required.

! In case of eye contact

No special actions required.

In case of ingestion

Ingestion is not considered a potential route of exposure.

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

! Physician's information / possible symptoms

No symptoms known so far.

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

! Treatment (Advice to doctor)

Treat symptoms.

! SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Product does not burn, fire-extinguishing activities according to surrounding.

5.2. Special hazards arising from the substance or mixture

no

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply (isolated).

! Additional information

Cool endangered containers with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

! SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

! For non-emergency personnel

See section 8.

Evacuate area.

Keep people away and stay on the upwind side.

! For emergency responders

Remove persons to safety.

Personal protection by wearing close-fitting protective clothing and breathing apparatus.

6.2. Environmental precautions

If possible, stop flow of product.

Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

If necessary, secure leaky pressure receptacles in a salvage packaging.

6.3. Methods and material for containment and cleaning up

Ensure adequate air ventilation.

6.4. Reference to other sections

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8

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! SECTION 7: Handling and storage

7.1. Precautions for safe handling

! Advice on safe handling

Use only in thoroughly ventilated areas.
Containers' temperature may not be increased above 50 °C.
Do not heat with open flames.
The working pressure in the receptacle must not exceed 2/3 of the test pressure of the pressure receptacle.
Provide good room ventilation even at ground level (vapours are heavier than air).
Prevent cylinders from falling over.
Ensure valve protection device is correctly fitted.
Ensure valve outlet cap nut or plug (where provided) is correctly fitted.
Open valve slowly to avoid pressure shock.
Use only properly specified equipment which is suitable for this product, its supply pressure and temperature.
Do not allow backfeed into the container.
Suck back of water into the container must be prevented.
No water to valves, flanges and other fittings.
Purging of pipes and valves with inert gases - to avoid: water, solvents.

Hygiene measures

At work do not eat, drink and smoke.

! Advice on protection against fire and explosion

The product is not combustible.
Pay attention to general rules of internal fire prevention.

7.2. Conditions for safe storage, including any incompatibilities

! Requirements for storage rooms and vessels

Keep in closed original container.
Ventilate store-rooms thoroughly.
Suitable materials: Normalised carbon steel, tempered alloy steel, aluminium alloys, austenitic stainless steels.
Valve: Suitable materials: Brass, copper alloys, carbon steels, aluminium alloys, austenitic stainless steels.
Other material details see ISO 11114.
All regulations and local requirements for the storage of containers have to be respected.

! Advice on storage compatibility

Do not store with spontaneously flammable materials.
Do not store together with combustible liquids or combustible solids.
Do not store together with animal feedstuffs.
Do not store together with explosives.
Do not store together with infectious substances.
Do not store together with radioactive material.
Do not store together with toxic liquids or toxic solids.
Do not store together with food.
Do not store together with oxidizing liquids or oxidizing solids.

! Further information on storage conditions

Ensure valve protection device is correctly fitted.
Store closed container at cool and aired place.
Store only in original container at temperature of 50°C maximum (=122°F).
Prevent cylinders from falling over.

7.3. Specific end use(s)

! Recommendation(s) for intended use

See section 1.2

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! SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No information available.

8.2. Exposure controls

! Respiratory protection

If ventilation insufficient, wear respiratory protection.

Keep self contained breathing apparatus readily available for emergency use.

Respiratory protection complying with EN 136.

In case of rescue and maintenance activities in storage containers use environment-independent breathing apparatus because of risk of suffocation by edging out of air oxygen

! Hand protection

Leather gloves

Safety gloves according EN 388

! Eye protection

Safety goggles with side protection complying with EN 166.

! Other protection measures

Safety shoes with steel toe.

! SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

compressed gas

Colour

colourless

Odour

odourless

Odour threshold

not applicable

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not applicable				
Acid number	not applicable				
boiling point	-186 °C				
melting point	-189,2 °C				
Flash point	no				
Vapourisation rate	not applicable				
Flammable (solid)	not applicable				
Flammability (gas)	no				
Ignition temperature	no				

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	Value	Temperature	at	Method	Remark
Self ignition temperature	no				
Lower explosion limit	not applicable				
Upper explosion limit	not applicable				
Vapour pressure	not applicable	20 °C			
Relative density	1,784 kg/m3	0 °C	1013 mbar		
Bulk density	not applicable				
Vapour density	1,38				air = 1
Solubility in water	67 mg/l	20 °C			
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity dynamic	not applicable				

Oxidising properties

no

Explosive properties

no

9.2. Other information

Vapours are heavier than air.

! SECTION 10: Stability and reactivity

10.1. Reactivity

See section "Possibility of hazardous reactions".

10.2. Chemical stability

Stable under recommended conditions of use and storage (see section 7).

10.3. Possibility of hazardous reactions

No hazardous reactions known.

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10.4. Conditions to avoid

Heat sources / heat.

10.5. Incompatible materials

! Substances to avoid

no

10.6. Hazardous decomposition products

No hazardous decomposition products known.

Thermal decomposition

Remark No decomposition if used as directed.

! SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	not applicable			
LD50 acute dermal	not applicable			
LC50 acute inhalation	no			
Skin irritation	non-irritant			
Eye irritation	non-irritant			
Skin sensitization	non-sensitizing			
Sensitization respiratory system	non-sensitizing			

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Mutagenicity				No effects from this product are known.
Reproduction-Toxicity				No effects from this product are known.
Carcinogenicity				No effects from this product are known.

! Specific target organ toxicity (single exposure)

Substance or mixture is not classified in GHS-criteria as specific target organ toxic with single exposure.

! Specific target organ toxicity (repeated exposure)

Substance or mixture is not classified in GHS-criteria as specific target organ toxic with repeated exposure.

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Additional information

No known toxicological effects from this product.

! SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

Value	Species	Method	Validation
Fish			The product does not cause any environmental damage.

12.2. Persistence and degradability

Elimination rate	Method of analysis	Method	Validation
Biological degradability	not applicable		

12.3. Bioaccumulative potential

Does not bioaccumulate.

12.4. Mobility in soil

Adsorption in the soil is not likely.

Because of its high volatility, it is unlikely that the product soil, water caused.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects

General regulation

No known ecological damage caused by this product.

! SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste code No.	Name of waste
16 05 05	gases in pressure containers other than those mentioned in 16 05 04

! Recommendations for the product

Discharge to atmosphere in a well ventilated place.

Return to manufacturer.

Recommendations for packaging

Transportable pressure equipment (empty, residual pressure): Return to supplier / manufacturer.

! SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	1006	1006	1006
14.2. UN proper shipping name	ARGON, COMPRESSED	ARGON, COMPRESSED	Argon, compressed

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	ADR/RID	IMDG	IATA-DGR
14.3. Transport hazard class(es)	2.2	2.2	2.2
14.4. Packing group	-	-	-
14.5. Environmental hazards	No	No	No

14.6. Special precautions for user

The protective measures listed in Sections 6, 7 and 8 of the Safety Data Sheet have to be considered.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

No transport as bulk according IBC - Code.

Land and inland navigation transport ADR/RID

Hazard label(s) 2.2

tunnel restriction code E

Classification code 1A

Marine transport IMDG

EmS: F-C, S-V

Air transport ICAO/IATA-DGR

Cargo aircraft only: Package max. 150 kg.

Passenger aircraft: Package max. 75 kg.

! SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

No information available.

15.2. Chemical Safety Assessment

For this substance a chemical safety assessment is not required.

The protective measures listed in Sections 6, 7 and 8 of the Safety Data Sheet have to be considered.

For this substance a chemical safety assessment has not been carried out.

! SECTION 16: Other information

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

All declarations of safety-data-sheet refer to pure substance.

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 5.2

! Sources of key data used

For the preparation of this safety data sheet, information from our suppliers as well as data from the "database of registered substances" of the European Chemicals Agency (ECHA) were used.