

Safety Data Sheet

Conforms to 1907/2006/EC





Version 4

Issue date 10-8-2009

| Argon | | | | | | |
|---|---|---------------|----------------|---------------|------------------|----------|
| 1 Identification of the substance/preparation and of the company/undertaking | | | | | | |
| Commercial product name | Argon | | | | | |
| Common chemical name | Argon | | | | | |
| Synonyms | Argon (cooled till liquid) | | | | | |
| Chemical formula | Ar | | | | | |
| Use of the substance/preparation | This substance is used in the (chemical) industry. | | | | | |
| EU category number | | | | | | |
| Company name | DSM Agro B.V. | | | | | |
| Company address | P.O. Box 601 6160 AP Geleen The Netherlands | | | | | |
| Company telephone | (31) 46 476 00 55 | | | | | |
| Company e-mail | dsm.agro@dsm.com | | | | | |
| Emergency telephone | (31) 46 476 55 55 | | | | 24/24 hours | 7/7 days |
| 2 Hazards identification | | | | | | |
| Physical/chemical hazards | Based on the available data of this product no hazardous properties are known. | | | | | |
| Environmental hazards | Based on the available data of this product no hazardous properties are known. | | | | | |
| Effect(s) of (over)exposure | Acts as a simple asphyxiant. Dermal contact with a rapidly evaporating liquid could result in frosting of the tissues or frostbite. | | | | | |
| Symptom(s) of (over)exposure | Over-exposure by inhalation may cause respiratory irritation. Inhalation of vapours may cause dizziness, an irregular heartbeat, narcosis, nausea or asphyxiation. | | | | | |
| Inhalation | Not applicable (gas). | | | | | |
| Ingestion | Extremely cold material. Can cause burns similar to frostbite. | | | | | |
| Skin contact | Extremely cold material. Can cause burns similar to frostbite. | | | | | |
| Eye contact | | | | | | |
| 3 Composition/information on ingredients | | | | | | |
| Chemical name | CAS no. | EC no. | % (w/w) | Symbol | R phrases | |
| Argon | 7440-37-1 | 231-147-0 | 100 | - | - | |
| <i>EC no. means EINECS or ELINCS number.</i> | | | | | | |
| 4 First aid measures | | | | | | |
| General | Move exposed person to fresh air. | | | | | |
| Inhalation | If inhaled, remove to fresh air. Obtain medical attention if symptoms occur. | | | | | |
| Ingestion | Not applicable (gas). | | | | | |
| Skin contact | Take off immediately all contaminated clothing. Do not pull clothing loose from skin. Wash immediately with plenty of water. Get medical attention. | | | | | |
| Eye contact | Rinse with plenty of running water. Obtain medical attention if symptoms occur. Ensure that eyewash stations and safety showers are close to the workstation location. | | | | | |
| Note to physician | | | | | | |

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| 5 Fire-fighting measures | |
| Extinguishing media | |
| Small fire | Non-combustible. Use extinguishing media suitable for surrounding materials. |
| Large fire | Non-combustible. Use extinguishing media suitable for surrounding materials. |
| Extinguishing media not to be used | |
| Unusual fire and explosion hazards | No specific hazard. |
| Hazardous thermal decomposition and combustion products | No specific data. |
| Special fire fighting procedures | No special measures required. Acts as a simple asphyxiant. Wear suitable protective clothing. Self-contained breathing apparatus. |
| 6 Accidental release measures | |
| Personal precautions | Use suitable protective equipment (section 8). |
| Environmental precautions | Stop leak if without risk. |
| Methods for cleaning up | |
| Small spill and leak | Provide adequate ventilation. Stop leak if without risk. |
| Large spill and leak | Provide adequate ventilation. Stop leak if without risk. |
| Remarks | |
| <i>Note: see section 8 for personal protective equipment and section 13 for waste disposal.</i> | |
| 7 Handling and storage | |
| Handling | Use with adequate ventilation. Ventilation required along the floor. |
| Storage | Keep in a cool place. Do not store above 50 °C. |
| Specific use(s) | |
| Packaging materials | |
| <i>Note: See section 10 for stability and reactivity</i> | |
| 8 Exposure controls / Personal protection | |
| Exposure limit values | |
| Engineering measures | None required. However, use of adequate ventilation is good industrial practice. |
| Hygienic measures | When using do not eat, drink or smoke. Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day. |
| Personal protection | Production scale |
| Respiratory system | In case of possible dangerous oxygen depletion: Self-contained breathing apparatus. (airhood, air fed respirator). In no case use a filter mask. |
| Skin and body | Working clothes. |
| Hands | Insulated gloves suitable for low temperatures |
| Eyes | Full-face mask |
| Environmental exposure controls | |
| <i>Advice on personal protection is applicable for high exposure levels.</i> | |
| <i>Select proper personal protection based on a risk</i> | |
| 9 Physical and chemical properties | |
| Appearance | Gas. (Cooled till liquid.) |
| Color | Colourless. |
| Odor | Odourless. |
| Odor threshold | |
| Molecular weight | 39.95 |
| pH | |
| Boiling point | -186 °C |
| Melting point/ range | -189 °C |

| | | |
|-----------|--|--|
| | Flash point | Not applicable. |
| | Flammability | Not applicable. |
| | Autoignition temperature | Not applicable. |
| | Decomposition temperature | Not applicable. |
| | Lower explosion limit | Not applicable. |
| | Upper explosion limit | Not applicable. |
| | Minimum ignition energy | Not applicable. |
| | Critical pressure | 36500 mm Hg |
| | Critical temperature | -122 °C |
| | Relative density | 1.38 (Air = 1) |
| | Density | 1.65 g/cm ³ (20°C) |
| | Loose bulk density | |
| | Vapour pressure at 20°C | |
| | Vapour density | |
| | Partition coefficient n-octanol/water | |
| | Viscosity | |
| | Mean particle size | |
| | Solubility in water | Insoluble in cold water |
| | Miscibility | |
| | Fat solubility | |
| | Conductivity | |
| | Gas group | |
| | Remarks | Density 1.385 g/cm ³ (Boiling point) . |
| 10 | Stability and reactivity | |
| | Stability | Stable under recommended storage and handling conditions (see section 7) |
| | Conditions to avoid | Exposure to sources of heat |
| | Materials to avoid | No special recommendations. |
| | Hazardous decomposition products | In case of fire: see section 5. |
| 11 | Toxicological information | |
| | Acute toxicity | Not available. |
| | Irritation | |
| | Sensitization | |
| | Chronic toxicity | Not available. |
| | Carcinogenicity | Not available. |
| | Mutagenicity | Not available. |
| | Reproductive toxicity | Not available. |
| | Remarks | |
| 12 | Ecological information | |
| | Mobility | For data on physical state and solubility see section 9. |
| | Persistence and degradability | |
| | Bioaccumulative potential | |
| | Ecotoxicity | |
| 13 | Disposal considerations | |
| | Responsibility of the receiver to have knowledge of national and local regulations. | |
| | Methods of disposal | Waste must be disposed of in accordance with national and local environmental regulations. |

| 14 Transport information | | | | | | |
|---|-----------|---|-------|---------------|---|--|
| Regulatory information | UN number | Proper shipping name | Class | Packing group | Label | Additional information |
| ADR/RID Class | UN 1951 | Argon, refrigerated liquid | 2.2 | - |  | Hazard identification number: 22 Limited quantity: LQ1 CEPIC Tremcard: 20S1951 |
| ADNR Class | UN 1951 | Argon, refrigerated liquid | 2.2 | - |  | |
| IMDG Class | UN 1951 | Argon, refrigerated liquid | 2.2 | - |  | Emergency schedules (EmS): F-C, S-V |
| IATA Class | UN 1951 | Argon, refrigerated liquid | 2.2 | - |  | Quantity limitation passenger aircraft: 50 Kg : Packaging instructions: 202 Quantity limitation Cargo aircraft: 500 Kg Packaging instructions: 202 |
| 15 Regulatory information | | | | | | |
| Responsibility of the receiver to have knowledge of national and local regulations. | | | | | | |
| EU regulations | | | | | | |
| Hazard symbol | | According to EU Directives 67/548/EEC and 1999/45/EC this product does not require labelling. | | | | |
| R- and S phrases | | According to EU Directives 67/548/EEC and 1999/45/EC this product does not require labelling. | | | | |
| National Fire protection Association (U.S.A) | | | | | | |
| 16 Other information | | | | | | |
| Risk phrases | | | | | | |
| Safety phrases | | | | | | |
| Symbols | | | | | | |
| Storage classification | | | | | | |
| Date previous SDS | | 18-9-2007 | | | | |
| Modifications in this version | | Adress change | | | | |
| References | | DSM: WW13837 | | | | |
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