


IG-55 EXTINGUISHING AGENT

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

- 1.1. Product identifier
Trade name : IG-55
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses : Industrial and professional. Perform risk assessment prior to use.
Test gas/Calibration gas.
Laboratory use.
Contact supplier for more information on uses.
- 1.3. Details of the manufacture's System
: AGUILERA EXTINCIÓN, S.L.
Avda. Alfonso Peña Boeuf, 6, P.I. Fin de Semana, 28022 Madrid
Tel: (+34) 913121656, Email address: extincion@aguilera.es
- 1.4. Details of the supplier of the safety data sheet
Company Name : PRAXAIR ESPAÑA, S.L.U.
Orense, 11 - 5ª Planta
28020 Madrid
- Email address (competent person) : contact_espana@praxair.com
- 1.5. Emergency telephone number
Telephone (competent person) : (+34)914533000
Transport emergency telephone number (24 h) : (+34)915974453
Facilities emergency telephone number (24 h) : (+34)902213000
Specialty gases emergency telephone number (24 h) : (+34)917863432

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture
Hazard Class and Category Code :
Regulation EC 1272/2008 (CLP)
• Physical hazards : Gases under pressure - Compressed gas - Warning - (CLP : Press. Gas) - H280
Classification EC 67/548 or EC 1999/45 :
Classification EC : Not classified as dangerous substance / mixture.
- 2.2. Label elements
Labelling Regulation EC 1272/2008 (CLP)
• Hazard pictograms :  GHS04
- Signal word : Warning
• Hazard statements : H280 : Contains gas under pressure; may explode if heated.
• Precautionary statements :
- Storage : P403 : Store in a well-ventilated place.
- 2.3. Other hazards
General information : Asphyxiant in high concentrations.

SECTION 3: Composition/information on ingredients

- 3.1. Substance / Mixture : Mixture.
Substance name : Nitrogen
Contents : 50 %
CAS No : 7727-37-9
EC No : 231-783-9
Index No : -----
Reach No :
Classification : Nota1
Press. Gas Compressed (H280)
- Substance name : Argon
Contents : 50 %
CAS No : 7440-37-1
EC No : 231-147-0
Index No : -----
Reach No :
Classification : Nota1
Press. Gas Compressed (H280)
- Other information : Contains no other components or impurities which will influence the classification of the product.
Full text of R-phrases see section 16.
Full text of H-statements see section 16.

MATERIAL SAFETY DATA SHEETMSDS Number:
300-15-07B**IG-55 EXTINGUISHING AGENT****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name : FIRE FIGHTING MIXTURE IG-55

1.2. Relevant identified uses of the substance or mixture and uses advised againstRelevant identified uses : Industrial and professional. Perform risk assessment prior to use.
Test gas/Calibration gas.
Laboratory use.
Contact supplier for more information on uses.**1.3. Details of the supplier of the safety data sheet**Company Name : PRAXAIR ESPAÑA, S.L.U.
Orense, 11 - 5ª Planta
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SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**Hazard Class and Category Code :
Regulation EC 1272/2008 (CLP)

• Physical hazards : Gases under pressure - Compressed gas - Warning - (CLP : Press. Gas) - H280

Classification EC 67/548 or EC 1999/45 :

Classification EC : Not classified as dangerous substance / mixture.

2.2. Label elements

Labelling Regulation EC 1272/2008 (CLP) :

• Hazard pictograms :



GHS04

• Signal word : Warning

• Hazard statements : H280 : Contains gas under pressure; may explode if heated.

• Precautionary statements :

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

2.3. Other hazards

General information : Asphyxiant in high concentrations.

SECTION 3: Composition/information on ingredients**3.1. Substance / Mixture**

Substance name : Mixture.

Contents : Nitrogen

CAS No : 50 %

EC No : 7727-37-9

Index No : 231-783-9

Reach No : -----

Classification : Nota1

Substance name : Not classified (DSD)
Press. Gas Compressed (H280)

Contents : Argon

CAS No : 50 %

EC No : 7440-37-1

Index No : 231-147-0

Reach No : -----

Classification : Nota1

Substance name : Not classified (DSD)
Press. Gas Compressed (H280)

Other information : Contains no other components or impurities which will influence the classification of the product.

Full text of R-phrases see section 16.

Full text of H-statements see section 16.

SECTION 4: First aid measures

IG-55 EXTINGUISHING AGENT**4.1. Description of first aid measures**

- **Inhalation** : 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 contact** : Adverse effects not expected from this product.
- **Eye contact** : Adverse effects not expected from this product.
- **Ingestion** : Ingestion is not considered a potential route of exposure.

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

- General information** : In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation.
Refer to section 11.

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

- General information** : None.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

- **Suitable extinguishing media** : Water spray or fog.
- **Unsuitable extinguishing media** : Do not use water jet to extinguish.

5.2. Special hazards arising from the substance or mixture

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

Hazardous combustion products

- 5.3. **Advice for fire-fighters** : Non defined.

Specific methods

- : If possible, stop flow of product.
Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas receptacles to rupture. Cool endangered receptacles with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems.
Use water spray or fog to knock down fire fumes if possible.

Special protective equipment for fire fighters

- : In confined space use self-contained breathing apparatus.
Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.
Standard EN 469 - Protective clothing for firefighters. Standard - EN 659: Protective gloves for firefighters.
Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

- General information** : Evacuate area.
Try to stop release.
Ensure adequate air ventilation.
Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.
Monitor concentration of released product.
Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.2. Environmental precautions

- General information** : Try to stop release.

6.3. Methods and material for containment and cleaning up

- General information** : Ventilate area.

6.4. Reference to other sections

- General information** : See also sections 8 and 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

- Safe use of the product** : Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.
Only experienced and properly instructed persons should handle gases under pressure.
The substance must be handled in accordance with good industrial hygiene and safety procedures.
Do not smoke while handling product.
Ensure the complete gas system was (or is regularly) checked for leaks before use.
Consider pressure relief device(s) in gas installations.

MATERIAL SAFETY DATA SHEET**IG-55 EXTINGUISHING AGENT****Safe handling of the gas receptacle**

- : Refer to supplier's container handling instructions.
- Do not allow backfeed into the container.
- Protect cylinders from physical damage; do not drag, roll, slide or drop.
- When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders.
- Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use.
- If user experiences any difficulty operating cylinder valve discontinue use and contact supplier.
- Never attempt to repair or modify container valves or safety relief devices.
- Damaged valves should be reported immediately to the supplier.
- Keep container valve outlets clean and free from contaminants particularly oil and water.
- Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment.
- Close container valve after each use and when empty, even if still connected to equipment.
- Never attempt to transfer gases from one cylinder/container to another.
- Never use direct flame or electrical heating devices to raise the pressure of a container.
- Do not remove or deface labels provided by the supplier for the identification of the cylinder contents.
- Containers should be stored in the vertical position and properly secured to prevent toppling.

7.2. Conditions for safe storage, including any incompatibilities
General information

- : Keep container below 50°C in a well ventilated place.
- Observe all regulations and local requirements regarding storage of containers.
- Containers should not be stored in conditions likely to encourage corrosion.
- Containers should be stored in the vertical position and properly secured to prevent toppling.
- Stored containers should be periodically checked for general condition and leakage.
- Container valve guards or caps should be in place.
- Store containers in location free from fire risk and away from sources of heat and ignition.
- Keep away from combustible materials.

7.3. Specific end use(s)**General information**

- : None.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****8.2. Exposure controls****Appropriate engineering controls**

- : Oxygen detectors should be used when asphyxiating gases may be released.
- Provide adequate general and local exhaust ventilation.
- Ensure exposure is below occupational exposure limits (where available).
- Systems under pressure should be regularly checked for leakages.
- Consider work permit system e.g. for maintenance activities.

Individual protection measures, e.g. personal protective equipment

- : A risk assessment should be conducted and documented in each work area to assess the risks related to the use of the product and to select the PPE that matches the relevant risk. The following recommendations should be considered: PPE compliant to the recommended EN/ISO standards should be selected.

• Eye/face protection

- : Wear safety glasses with side shields.
- Standard EN 166 - Personal eye-protection.

• Skin protection

:

- Hand protection

- : Wear working gloves when handling gas containers.
- Standard EN 388 - Protective gloves against mechanical risk.

- Other

- : Wear safety shoes while handling containers.
- Standard EN ISO 20345 - Personal protective equipment - Safety footwear.

• Respiratory protection

- : Self contained breathing apparatus (SCBA) or positive pressure airline with mask are to be used in oxygen-deficient atmospheres.
- Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask.

• Thermal hazards

- : None necessary.

Environmental exposure controls

- : Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties****Appearance**

- : Gas.

Physical state at 20°C / 101.3kPa

- : Gas.

Colour

- : Mixture contains one or more component(s) which have the following colour(s):
- Colourless.

Odour

- : There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.
- Mixture contains one or more component(s) which have the following odour(s):
- Odourless.

Odour threshold

- : Odour threshold is subjective and inadequate to warn for overexposure.

pH value

- : Not applicable for gas-mixtures.

Molar mass [g/mol]

- : Not applicable for gas-mixtures.

Melting point [°C]

- : Not applicable for gas-mixtures.

Boiling point [°C]

- : Not applicable for gas-mixtures.

Flash point [°C]

- : Not applicable for gas-mixtures.

Evaporation rate (ether=1)

- : Not applicable for gas-mixtures.

Flammability range [vol% in air]

- : Not applicable for gas-mixtures.

Vapour pressure [20°C]

- : Not applicable.

Relative density, gas (air=1)

- : Heavier than air.

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300-15-07B**IG-55 EXTINGUISHING AGENT**

Solubility in water [mg/l]	: Solubility in water of component(s) of the mixture : • Nitrogen : 20 • Argon : 61
Partition coefficient n-octanol/water [log Kow]	: Not applicable for gas-mixtures.
Viscosity at 20°C [mPa.s]	: Not applicable.
Explosive Properties	: Not applicable.
Oxidising Properties	: None.
9.2 Other information	
Other data	: Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

SECTION 10: Stability and reactivity

10.1. Reactivity	
General information	: No reactivity hazard other than the effects described in sub-sections below.
10.2. Chemical stability	
General information	: Stable under normal conditions.
10.3. Possibility of hazardous reactions	
General information	: Non defined.
10.4. Conditions to avoid	
General information	: Non defined.
10.5. Incompatible materials	
General information	: Non defined.
10.6. Hazardous decomposition products	
General information	: 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	: No known toxicological effects from this product.
Rat inhalation LC50 [ppm/4h]	: No data available.
Skin corrosion/irritation	: No known effects from this product.
Serious eye damage/irritation	: No known effects from this product.
Respiratory or skin sensitisation	: No known effects from this product.
Carcinogenicity	: No known effects from this product.
Germ cell mutagenicity	: No known effects from this product.
Toxic for reproduction Fertility	: No known effects from this product.
Toxic for reproduction unborn child	: No known effects from this product.
STOT-single exposure	: No known effects from this product.
STOT-repeated exposure	: No known effects from this product.
Aspiration hazard	: Not applicable for gases and gas-mixtures.

SECTION 12: Ecological information

12.1. Toxicity	
General information	: Classification criteria are not met.
EC50 48h - Daphnia magna [mg/l]	: No data available.
EC50 72h Algae [mg/l]	: No data available.
LC50-96 h - fish [mg/l]	: No data available.
12.2. Persistence and degradability	
General information	: No data available.
12.3. Bioaccumulative potential	
General information	: No data available.
12.4. Mobility in soil	
General information	: No data available.
12.5. Results of PBT and vPvB assessment	
General information	: No data available.
12.6. Other adverse effects	
Effect on ozone layer	: None.
Effect on the global warming	: No known ecological damage caused by this product. No known ecological damage caused by this product. No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods	
General information	: Ensure that the emission levels from local regulations or operating permits are not exceeded. Do not discharge into any place where its accumulation could be dangerous. Refer to the EIGA code of practice Doc.30 "Disposal of Gases", downloadable at http://www.eiga.org for more guidance on suitable disposal methods. Contact supplier if guidance is required.
List of hazardous wastes	: 16 05 05: Gases in pressure containers other than those mentioned in 16 05 04.
13.2. Additional information	
General information	: None.

MATERIAL SAFETY DATA SHEETMSDS Number:
300-15-07B**IG-55 EXTINGUISHING AGENT****SECTION 14: Transport information****14.1. UN number**

UN number : 1956

14.2. UN proper shipping name

Shipping name : COMPRESSED GAS, N.O.S. (Argon, Nitrogen)

14.3. Transport hazard class(es)

Transport hazard class(es) :



2.2 : Non-flammable, non-toxic gases

14.4. Packing groupClassification code : 1
A**14.5. Environmental hazards**

Environmental hazards : None.

IMDG-Marine pollutant : No

14.6 Special precautions for userGeneral information : 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 there is adequate ventilation.
- 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.**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

General information : Not applicable.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**EU legislation :
Seveso directive 96/82/EC : Not covered.National legislation :
General information : Ensure all national/local regulations are observed.**15.2. Chemical safety assessment**

General information : A CSA does not need to be carried out for this product.

SECTION 16: Other information**Indication of changes** : Revised safety data sheet in accordance with commission regulation (EU) No 453/2010.**Training advice** : Receptacle under pressure.
Contact with liquid may cause cold burns/frostbite.
Receptacle under pressure.
Contact with liquid may cause cold burns/frostbite.
Receptacle under pressure.
Contact with liquid may cause cold burns/frostbite.
Receptacle under pressure.
Not classified as dangerous substance / mixture.**Labelling EC 67/548 or EC 1999/45**

• Symbol(s) : None.

• R Phrase(s) : None.

• S Phrase(s) : None.

Information source

: Classification in accordance with calculation methods of regulation (EC) 1272/2008 CLP / (EC) 1999/45 DPD.

This Safety Data Sheet has been established in accordance with the applicable European Union legislation.

Notes: Note 1:
Listed in Annex IV / V REACH, exempted from registration.Note 2:
Registration deadline not expired.Note 3:
Registration not required: Substance manufactured or imported < 1t/y.**Other Advice** : 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.

Responsibilities : These instructions have been elaborated by Praxair on the base of available information at the time of going to press and cover the most common applications, without guaranteeing that its content is sufficient in all cases and situations.

Its observance does not exclude the fulfillment of the in force regulation in every moment.



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End Document