



A-GAS R600A

A-Gas (Singapore) PTE LTD

Chemwatch: 1969-1

Version No: 5.1.1.1

Material Safety Data Sheet according to NOHSC and ADG requirements

Chemwatch Hazard Alert Code: 4

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SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	A-GAS R600A
Chemical Name	A-Gas R600a
Synonyms	(CH ₃) ₂ -CH-CH ₃ , 1,1-dimethylethane, 2-methyl-propane, 2-methylpropane, C ₄ -H ₁₀ , Propane, 2-methyl-, R600a, butane iso-, i-butane, isobutane, propane, 2-methyl-, trimethylmethane
Proper shipping name	ISOBUTANE
Chemical formula	C ₄ H ₁₀
Other means of identification	Not Available
CAS number	75-28-5.

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

Relevant identified uses	The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation. , Refrigerant; motor fuel; aerosol propellant; organic synthesis; synthetic rubber; instrument calibration fluid; ingredient in LPG (liquefied petroleum gas),. [~Intermediate ~]
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Details of the supplier of the safety data sheet

Registered company name	A-Gas (Singapore) PTE LTD
Address	360 Orchard Road, #10-05, Int'l Building 238869 Singapore
Telephone	65 6836 0065
Fax	65 6836 6521
Website	www.agas.com
Email	Not Available

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	65 6836 0065
Other emergency telephone numbers	65 6836 0065

CHEMWATCH EMERGENCY RESPONSE

Primary Number	Alternative Number 1	Alternative Number 2
1800 039 008	+612 9186 1132	Not Available

Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

DANGEROUS GOODS. NON-HAZARDOUS SUBSTANCE. According to NOHSC Criteria, and ADG Code.

CHEMWATCH HAZARD RATINGS

	Min	Max
Flammability	4	4
Toxicity	2	2
Body Contact	2	2
Reactivity	1	1
Chronic	2	2


0 = Minimum
1 = Low
2 = Moderate
3 = High
4 = Extreme

Poisons Schedule	A- NZ-
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A-Gas R600a

Risk Phrases [1]	R44	Risk of explosion if heated under confinement.
	R12	Extremely flammable.
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI	
GHS Classification [1]	Flammable Gas Category 1, Gas under Pressure (Liquefied gas)	
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI	

Label elements

GHS label elements	
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SIGNAL WORD	DANGER
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Hazard statement(s)

H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated
AUH044	Risk of explosion if heated under confinement

Precautionary statement(s): Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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Precautionary statement(s): Response

P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381	Eliminate all ignition sources if safe to do so.

Precautionary statement(s): Storage

P410+P403	Protect from sunlight. Store in a well-ventilated place.
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Precautionary statement(s): Disposal

Not Applicable

Label elements



Relevant risk statements are found in section 2

Indication(s) of danger	F+
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SAFETY ADVICE

S03	Keep in a cool place.
S15	Keep away from heat.
S33	Take precautionary measures against static discharges.
S41	In case of fire and/or explosion, DO NOT BREATHE FUMES.
S43	In case of fire use...
S51	Use only in well ventilated areas.
S56	Dispose of this material and its container at hazardous or special waste collection point.

Other hazards

	Inhalation may produce health damage*.
	Cumulative effects may result following exposure*.
	May produce discomfort of the respiratory system*.
	Repeated exposure potentially causes skin dryness and cracking*.
	Vapours potentially cause drowsiness and dizziness*.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

CAS No	%[weight]	Name
75-28-5.	>99	iso-butane

Mixtures

See section above for composition of Substances

SECTION 4 FIRST AID MEASURES**Description of first aid measures**

Eye Contact	<ul style="list-style-type: none"> ▶ If product comes in contact with eyes remove the patient from gas source or contaminated area. ▶ Take the patient to the nearest eye wash, shower or other source of clean water. ▶ Open the eyelid(s) wide to allow the material to evaporate. ▶ Gently rinse the affected eye(s) with clean, cool water for at least 15 minutes. Have the patient lie or sit down and tilt the head back. Hold the eyelid(s) open and pour water slowly over the eyeball(s) at the inner corners, letting the water run out of the outer corners. ▶ The patient may be in great pain and wish to keep the eyes closed. It is important that the material is rinsed from the eyes to prevent further damage. ▶ Ensure that the patient looks up, and side to side as the eye is rinsed in order to better reach all parts of the eye(s) ▶ Transport to hospital or doctor. ▶ Even when no pain persists and vision is good, a doctor should examine the eye as delayed damage may occur. ▶ If the patient cannot tolerate light, protect the eyes with a clean, loosely tied bandage. ▶ Ensure verbal communication and physical contact with the patient. <p>DO NOT allow the patient to rub the eyes DO NOT allow the patient to tightly shut the eyes DO NOT introduce oil or ointment into the eye(s) without medical advice DO NOT use hot or tepid water.</p>
Skin Contact	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation. <p>In case of cold burns (frost-bite):</p> <ul style="list-style-type: none"> ▶ Move casualty into warmth before thawing the affected part; if feet are affected carry if possible ▶ Bathe the affected area immediately in luke-warm water (not more than 35 deg C) for 10 to 15 minutes, immersing if possible and without rubbing ▶ DO NOT apply hot water or radiant heat. ▶ Apply a clean, dry, light dressing of "fluffed-up" dry gauze bandage ▶ If a limb is involved, raise and support this to reduce swelling ▶ If an adult is involved and where intense pain occurs provide pain killers such as paracetamol ▶ Transport to hospital, or doctor ▶ Subsequent blackening of the exposed tissue indicates potential of necrosis, which may require amputation.
Inhalation	<ul style="list-style-type: none"> ▶ Following exposure to gas, remove the patient from the gas source or contaminated area. ▶ NOTE: Personal Protective Equipment (PPE), including positive pressure self-contained breathing apparatus may be required to assure the safety of the rescuer. ▶ Prostheses such as false teeth, which may block the airway, should be removed, where possible, prior to initiating first aid procedures. ▶ If the patient is not breathing spontaneously, administer rescue breathing. ▶ If the patient does not have a pulse, administer CPR. ▶ If medical oxygen and appropriately trained personnel are available, administer 100% oxygen. ▶ Summon an emergency ambulance. If an ambulance is not available, contact a physician, hospital, or Poison Control Centre for further instruction. ▶ Keep the patient warm, comfortable and at rest while awaiting medical care. ▶ MONITOR THE BREATHING AND PULSE, CONTINUOUSLY. ▶ Administer rescue breathing (preferably with a demand-valve resuscitator, bag-valve mask-device, or pocket mask as trained) or CPR if necessary.
Ingestion	<ul style="list-style-type: none"> ▶ Not considered a normal route of entry. ▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. ▶ Avoid giving milk or oils. ▶ Avoid giving alcohol.

Indication of any immediate medical attention and special treatment needed

Indication of any immediate medical attention and special treatment needed	<p>For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:</p> <ul style="list-style-type: none"> ▶ Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure. ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO₂ 50 mm Hg) should be intubated. ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance. ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax. ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice. ▶ Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology] <p>For frost-bite caused by liquefied petroleum gas:</p> <ul style="list-style-type: none"> ▶ If part has not thawed, place in warm water bath (41-46 C) for 15-20 minutes, until the skin turns pink or red. ▶ Analgesia may be necessary while thawing. ▶ If there has been a massive exposure, the general body temperature must be depressed, and the patient must be immediately rewarmed by whole-body immersion, in a bath at the above temperature. ▶ Shock may occur during rewarming. ▶ Administer tetanus toxoid booster after hospitalization. ▶ Prophylactic antibiotics may be useful. ▶ The patient may require anticoagulants and oxygen. <p>[Shell Australia 22/12/87] for gas exposures: ----- BASIC TREATMENT</p>
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- ▶ Establish a patent airway with suction where necessary.
- ▶ Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- ▶ Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- ▶ Monitor and treat, where necessary, for pulmonary oedema .
- ▶ Monitor and treat, where necessary, for shock.
- ▶ Anticipate seizures.

ADVANCED TREATMENT

- ▶ Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- ▶ Positive-pressure ventilation using a bag-valve mask might be of use.
- ▶ Monitor and treat, where necessary, for arrhythmias.
- ▶ Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- ▶ Drug therapy should be considered for pulmonary oedema.
- ▶ Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- ▶ Treat seizures with diazepam.
- ▶ Proparacaine hydrochloride should be used to assist eye irrigation.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

**DO NOT EXTINGUISH BURNING GAS UNLESS LEAK CAN BE STOPPED SAFELY:
OTHERWISE: LEAVE GAS TO BURN.**

FOR SMALL FIRE:

- ▶ Dry chemical, CO2 or water spray to extinguish gas (only if absolutely necessary and safe to do so).

Special hazards arising from the substrate or mixture

Fire Incompatibility

- ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Advice for firefighters

Fire Fighting

FOR FIRES INVOLVING MANY GAS CYLINDERS:

- ▶ To stop the flow of gas, specifically trained personnel may inert the atmosphere to reduce oxygen levels thus allowing the capping of leaking container(s).
- ▶ Reduce the rate of flow and inject an inert gas, if possible, before completely stopping the flow to prevent flashback.
- ▶ **DO NOT extinguish the fire until the supply is shut off**

Fire/Explosion Hazard

- ▶ **HIGHLY FLAMMABLE:** will be easily ignited by heat, sparks or flames.
- ▶ Will form explosive mixtures with air
- ▶ Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/ or vapour concentration.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills

- ▶ Avoid breathing vapour and any contact with liquid or gas. Protective equipment including respirator should be used.
- ▶ **DO NOT enter confined spaces where gas may have accumulated.**

Major Spills

- ▶ Clear area of all unprotected personnel and move upwind.
- ▶ Alert Emergency Authority and advise them of the location and nature of hazard.
- ▶ May be violently or explosively reactive.
- ▶ Wear full body clothing with breathing apparatus.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling

- ▶ Containers, even those that have been emptied, may contain explosive vapours.
- ▶ Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
- ▶ Electrostatic discharge may be generated during pumping - this may result in fire.
- ▶ Ensure electrical continuity by bonding and grounding (earthing) all equipment.

Other information

- ▶ Store in an upright position.
- ▶ Outside or detached storage is preferred.
- ▶ Cylinders should be stored in a purpose-built compound with good ventilation, preferably in the open.
- ▶ Such compounds should be sited and built in accordance with statutory requirements.

Conditions for safe storage, including any incompatibilities

Suitable container

- ▶ Cylinder:
- ▶ Ensure the use of equipment rated for cylinder pressure.
- ▶ Ensure the use of compatible materials of construction.
- ▶ Valve protection cap to be in place until cylinder is secured, connected.

Storage incompatibility

- Butane/ isobutane
- ▶ reacts violently with strong oxidisers
 - ▶ reacts with acetylene, halogens and nitrous oxides

▶ is incompatible with chlorine dioxide, conc.

PACKAGE MATERIAL INCOMPATIBILITIES

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA


Not Available

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
iso-butane	800(ppm)	2400(ppm)	4000(ppm)	15000(ppm)

Ingredient	Original IDLH	Revised IDLH
A-GAS R600A	Not Available	Not Available

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk.
Personal protection	
Eye and face protection	<ul style="list-style-type: none"> ▶ Chemical goggles. ▶ Full face shield may be required for supplementary but never for primary protection of eyes ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.
Skin protection	See Hand protection below
Hand protection	<ul style="list-style-type: none"> ▶ When handling sealed and suitably insulated cylinders wear cloth or leather gloves. ▶ Insulated gloves: <p>NOTE: Insulated gloves should be loose fitting so that may be removed quickly if liquid is spilled upon them. Insulated gloves are not made to permit hands to be placed in the liquid; they provide only short-term protection from accidental contact with the liquid.</p>
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ▶ The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton. ▶ Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost. <p>BREThERICK: Handbook of Reactive Chemical Hazards.</p>
Thermal hazards	

Recommended material(s)

Respiratory protection

GLOVE SELECTION INDEX

Not Applicable

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the A-GAS R600A Not Available

Material	CPI

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Packed as liquid under pressure and remains liquid only under pressure. Sudden release of pressure or leakage may result in rapid vapourisation with generation of a large volume of highly flammable / explosive gas.		
Physical state	Liquefied gas	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	462 (365)
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	-159.4	Viscosity (cSt)	Not Applicable

A-Gas R600a

Initial boiling point and boiling range (°C)	-11.7	Molecular weight (g/mol)	58.12
Flash point (°C)	-82.8	Taste	Not Available
Evaporation rate	Not Applicable	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	8.4	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.8	Volatile Component (%vol)	100
Vapour pressure (kPa)	Not Available	Gas group	IIA
Solubility in water (g/L)	Immiscible	pH as a solution(1%)	Not Applicable
Vapour density (Air = 1)	2.06	VOC g/L	

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> ▶ Presence of incompatible materials. ▶ Product is considered stable. ▶ Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	<p>Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.</p> <p>Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p> <p>Limited evidence or practical experience suggests that the material may produce irritation of the respiratory system, in a significant number of individuals, following inhalation.</p>
Ingestion	Considered an unlikely route of entry in commercial/industrial environments
Skin Contact	<p>The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.</p> <p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p>
Eye	<p>Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).</p> <p>Direct contact with the eye may not cause irritation because of the extreme volatility of the gas; however concentrated atmospheres may produce irritation after brief exposures..</p>
Chronic	<p>Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.</p> <p>Principal route of occupational exposure to the gas is by inhalation.</p> <p>Repeated or prolonged exposure to mixed hydrocarbons may produce narcosis with dizziness, weakness, irritability, concentration and/or memory loss, tremor in the fingers and tongue, vertigo, olfactory disorders, constriction of visual field, paraesthesias of the extremities, weight loss and anaemia and degenerative changes in the liver and kidney. Chronic exposure by petroleum workers, to the lighter hydrocarbons, has been associated with visual disturbances, damage to the central nervous system, peripheral neuropathies (including numbness and paraesthesias), psychological and neurophysiological deficits, bone marrow toxicities (including hypoplasia possibly due to benzene) and hepatic and renal involvement.</p>

A-GAS R600A	TOXICITY	IRRITATION
	Inhalation (Mouse) LC50: 52 mg/kg/1h *	Not Available
iso-butane	TOXICITY	IRRITATION
	Inhalation (Mouse) LC50: 52 mg/kg/1h *	Not Available
	Not Available	Not Available

* Value obtained from manufacturer's msds

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

A-GAS R600A, ISO-BUTANE	*WISER
Acute Toxicity	⊖
Skin Irritation/Corrosion	⊖
Carcinogenicity	⊖
Reproductivity	⊖

Serious Eye Damage/Irritation	⊗	STOT - Single Exposure	⊗
Respiratory or Skin sensitisation	⊗	STOT - Repeated Exposure	⊗
Mutagenicity	⊗	Aspiration Hazard	⊗

CMR STATUS

SECTION 12 ECOLOGICAL INFORMATION

Toxicity
For isobutane:
Refrigerant Gas: Saturated Hydrocarbons have zero ozone depletion potential (ODP) and will photodegrade under atmospheric conditions. [Calor Gas]
Environmental Fate

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Not Available	Not Available	Not Available

Bioaccumulative potential

Ingredient	Bioaccumulation
Not Available	Not Available

Mobility in soil

Ingredient	Mobility
Not Available	Not Available


SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> ▶ Evaporate or incinerate residue at an approved site. ▶ Return empty containers to supplier. ▶ Ensure damaged or non-returnable cylinders are gas-free before disposal.
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SECTION 14 TRANSPORT INFORMATION

Labels Required

	
Marine Pollutant	NO
HAZCHEM	2YE

Land transport (ADG)

UN number	1969
Packing group	Not Available
UN proper shipping name	ISOBUTANE
Environmental hazard	No relevant data
Transport hazard class(es)	Class : 2.1 Subrisk :
Special precautions for user	Special provisions : limited quantity : 0

Air transport (ICAO-IATA / DGR)

UN number	1969
Packing group	Not Available
UN proper shipping name	Isobutane
Environmental hazard	No relevant data
Transport hazard class(es)	ICAO/IATA Class : 2.1 ICAO / IATA Subrisk :

	ERG Code	10L
Special precautions for user	Special provisions	A1
	Cargo Only Packing Instructions	200
	Cargo Only Maximum Qty / Pack	150 kg
	Passenger and Cargo Packing Instructions	Forbidden
	Passenger and Cargo Maximum Qty / Pack	Forbidden
	Passenger and Cargo Limited Quantity Packing Instructions	Forbidden
	Passenger and Cargo Maximum Qty / Pack	Forbidden

Sea transport (IMDG-Code / GGVSee)

UN number	1969
Packing group	Not Available
UN proper shipping name	ISOBUTANE
Environmental hazard	No relevant data
Transport hazard class(es)	IMDG Class 2.1
	IMDG Subrisk
Special precautions for user	EMS Number F-D,S-U
	Special provisions
	Limited Quantities 0

SECTION 15 REGULATORY INFORMATION**Safety, health and environmental regulations / legislation specific for the substance or mixture**

iso-butane(75-28-5.) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List", "International Maritime Dangerous Goods Requirements (IMDG Code)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "Australia - Victoria Occupational Health and Safety Regulations - Schedule 9: Materials at Major Hazard Facilities (And Their Threshold Quantity) Table 2", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index", "Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)", "Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions", "OECD List of High Production Volume (HPV) Chemicals", "International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft", "International Numbering System for Food Additives", "Australia Dangerous Goods Code (ADG Code) - Packing Instruction - Liquefied and Dissolved Gases", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)", "Australia High Volume Industrial Chemical List (HVICL)", "Australia National Pollutant Inventory", "International Air Transport Association (IATA) Dangerous Goods Regulations", "Regulations concerning the International Carriage of Dangerous Goods by Rail - Table A: Dangerous Goods List - RID 2013 (English)", "Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)"
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SECTION 16 OTHER INFORMATION**Other information**

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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