

SAFETY DATA SHEET

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

1.1. Product identifier	
Name of the substance	Propane
Identification number	601-003-00-5 (Index number)
Registration number	01-2119486944-21-0063
Synonyms	None.
SDS number	WC002
Issue date	11-April-2014
Version number	07
Revision date	12-June-2024
Supersedes date	11-December-2023
1.2. Relevant identified uses of th	e substance or mixture and uses advised against
Identified uses	Soldering and brazing.
Uses advised against	None known.
1.3. Details of the supplier of the	safety data sheet
Manufacturer/Supplier	Worthington Enterprises
Address	Beim Flaschenwerk 1, A-3291
	Kienberg bei Gaming
	Austria
Supplier	Monument Tools Ltd.
	Restmor Way Hackbridge Surrey SM6 7AH, United Kingdom
Telephone	+44 (0)20 8288 1100
Supplier	Rothenberger
	2 Kingthorne Park, Henson Way, Kettering, Northants,
	NN16 8PX, United Kingdom
Telephone	+44(0)1536 3100300
E-mail	SDSRequest@WTHG.com
Telephone	1-800-359-9678
1.4. Emergency telephone number	+44 20 3807 3798
CHEMTREC	CCN 628056
General emergency	112 or 999 SDS/Product information may not be available for the Emergency Service.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards		
Flammable gases	Category 1A	H220 - Extremely flammable gas.
Gases under pressure	Liquefied gas	H280 - Contains gas under pressure; may explode if heated.

2.2. Label elements

Label according to Regulation ((EC) No. 1272/2008 as amended
Hazard pictograms	
Signal word	Danger
Hazard statements	
H220 H280	Extremely flammable gas. Contains gas under pressure; may explode if heated.
Precautionary statements	
Prevention	
P210 P233	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed.
Response	
P377 P381	Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources.
Storage	
P410 + P403	Protect from sunlight. Store in a well-ventilated place.
Disposal	Not assigned.
Supplemental information on the label	None.
2.3. Other hazards	May displace oxygen and cause rapid suffocation. Contact with liquefied gas may cause frostbite. This substance does not meet vPvB / PBT criteria of Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Propane	87.5 - 100	74-98-6 200-827-9	01-2119486944-21-0063	601-003-00-5	
	Classification: Flam. Gas	1A;H220, Press. Ga	s;H280		U
Additives					
Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Ethyl mercaptan	< 0.005	75-08-1 200-837-3	-	016-022-00-9	#
Constituents					
Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Propylene	0 - 10	115-07-1 204-062-1	-	601-011-00-9	
Ethane	0 - 7	74-84-0 200-814-8	-	601-002-00-X	
Butane	0 - 2.5	106-97-8 203-448-7	-	601-004-01-8	#

List of abbreviations and symbols that may be used above

Note U (Table 3.1): When put on the market gases have to be classified as "Gases under pressure", in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

Composition comments

The full text for all H-statements is displayed in section 16.

Gas concentrations are in percent by volume.

SECTION 4: First aid measures

General information

First aid personnel must be aware of own risk during rescue. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory tract irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

Skin contact	Not likely, due to the form of the product. If frostbite occurs, immerse affected area in warm water (not exceeding 105°F/41°C). Keep immersed for 20 to 40 minutes. Get medical attention immediately.
Eye contact	Not likely, due to the form of the product. If frostbite occurs, immediately flush eyes with plenty of warm water (not exceeding 105°F/41°C) for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention promptly if symptoms persist or occur after washing.
Ingestion	This material is a gas under normal atmospheric conditions and ingestion is unlikely.
4.2. Most important symptoms and effects, both acute and delayed	Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themself.
4.3. Indication of any immediate medical attention and special treatment needed	Exposure may aggravate pre-existing respiratory disorders. Provide general supportive measures and treat symptomatically.
SECTION 5: Firefighting n	neasures
General fire hazards	Extremely flammable gas. Contents under pressure. Pressurised container may explode when exposed to heat or flame.
5.1. Extinguishing media Suitable extinguishing media	Dry chemical powder. Carbon dioxide (CO2). Water fog. Foam.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2. Special hazards arising from the substance or mixture	Extremely flammable gas. May form explosive mixtures with air. Gas may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Special fire fighting procedures	Do not extinguish fires unless gas flow can be stopped safely; explosive re-ignition may occur. Promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shutoff. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers exposed to flames with water until well after the fire is out.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Evacuate the area promptly. Keep unnecessary personnel away. Wear appropriate personal protective equipment.
For emergency responders	No action shall be taken involving any personal risk or without suitable training. In the event of a leak evacuate all personnel until ventilation can restore oxygen concentrations to safe levels. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Wear appropriate protective equipment and clothing during clean-up.
6.2. Environmental precautions	Should not be released into the environment. Prevent further leakage or spillage if safe to do so.
6.3. Methods and material for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Stop leak if you can do so without risk. If possible, turn leaking containers so that gas escapes rather than liquid. Isolate area until gas has dispersed.
6.4. Reference to other sections	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Keep away from heat/sparks/open flames/hot surfaces No smoking. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. All equipment used when handling the product must be grounded. Do not breathe gas. Avoid prolonged exposure. Do not enter storage areas or confined spaces unless adequately ventilated. Use only outdoors or in a well-ventilated area. Oxygen concentration should not fall below 19.5 % at sea level (pO2 = 135 mmHg). Mechanical ventilation or local exhaust ventilation may be required. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities	Do not store, incinerate, or heat this material above 120 degrees Fahrenheit. Keep away from heat, sparks and open flame. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Protect cylinders from damage. Stored containers should be periodically checked for general condition and leakage. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).		
	Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended		
	 ANNEX 1, PART 1 Categories of dangerous substances Hazard categories in accordance with Regulation (EC) No 1272/2008 P2 FLAMMABLE GASES (Lower-tier requirements = 10 tonnes; Upper-tier requirements = 50 tonnes) ANNEX 1, PART 2 Named dangerous substances 18. Liquefied flammable gases, Category 1 or 2 (including LPG) and natural gas (Lower-tier requirements = 50 tonnes; Upper-tier requirements = 200 tonnes) 		
7.3. Specific end use(s)	Soldering and brazing. Observe industrial sector	guidance on best practices.	
SECTION 8: Exposure cont	trols/personal protection		
8.1. Control parameters			
Occupational exposure limits UK. OELs. Workplace Expos Constituents	ure Limits (WELs) (EH40/2005 (Fourth Edition 2 Type	2020)), Table 1 Value	
Butane (CAS 106-97-8)	STEL	1810 mg/m3	
		750 ppm	
	TWA	1450 mg/m3	
		600 ppm	
Biological limit values	No biological exposure limits noted for the ingred	ient(s).	
Recommended monitoring procedures	Follow standard monitoring procedures.		
Derived no effect levels (DNELs)	Not available.		
Predicted no effect concentrations (PNECs)	Not available.		
Exposure guidelines	Follow standard monitoring procedures.		
8.2. Exposure controls			
Appropriate engineering controls	Provide adequate ventilation and minimize the risk of inhalation of gas. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.		
Individual protection measures, s General information	such as personal protective equipment Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.		
Eye/face protection	Wear approved safety glasses or goggles. Face shield is recommended. Eye protection should meet standard EN 166.		
Skin protection			
- Hand protection	Wear suitable gloves tested to EN374. Wear cold	l insulating gloves.	
- Other	Wear protective clothing appropriate for the risk of	of exposure.	
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Wear positive pressure self-contained breathing apparatus (SCBA).		
Thermal hazards	Contact with liquefied gas might cause frostbites, appropriate thermal protective clothing, when new	in some cases with tissue damage. Wear cessary.	
Hygiene measures	Do not eat, drink or smoke when using the produce eyewash station and safety shower. Handle in ac practices.	ct. Wash thoroughly after handling. Provide cordance with good industrial hygiene and safety	

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		
Physical	state	Gas.
Form		Compressed liquefied gas.
Colour		Colourless.
Odour		Rotten egg.
Odour thresh	nold	Property has not been measured.
рН		Not applicable, material is a gas.
Melting point	/freezing point	-188 °C (-306.4 °F)
Initial boiling range	point and boiling	-42 °C (-43.6 °F) 14.7 psia
Flash point		-104 °C (-155.2 °F)
Evaporation	rate	Property has not been measured.
Flammability	(solid, gas)	Extremely flammable gas.
Upper/lower	flammability or expl	osive limits
Explosiv	e limit - lower (%)	2.15 %
Explosiv (%)	e limit – upper	9.6 %
Vapour press	sure	127 psig (21°C / 70°F)
Vapour dens	ity	Property has not been measured.
Relative dens	sity	1.5 (vapour) (Air=1) (15 °C (59 °F)) 0.504 (liquid)
Solubility(ies	\$)	
Solubility(ies Solubility	s) y (water)	Slightly soluble in water.
Solubility(ies Solubility Partition coe (n-octanol/wa	;) y (water) fficient ater)	Slightly soluble in water. 1.77
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition	s) y (water) fficient ater) a temperature	Slightly soluble in water. 1.77 432 °C (809.6 °F)
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition Decomposition	;) y (water) fficient ater) i temperature on temperature	Slightly soluble in water. 1.77 432 °C (809.6 °F) Property has not been measured.
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition Decompositie Viscosity	;) y (water) fficient ater) n temperature on temperature	Slightly soluble in water. 1.77 432 °C (809.6 °F) Property has not been measured. Not applicable, material is a gas.
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition Decomposition Viscosity Explosive pro	s) y (water) fficient ater) i temperature on temperature operties	Slightly soluble in water. 1.77 432 °C (809.6 °F) Property has not been measured. Not applicable, material is a gas. Not explosive.
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition Decompositie Viscosity Explosive pro Oxidising pro	e) y (water) fficient ater) n temperature on temperature operties operties	Slightly soluble in water. 1.77 432 °C (809.6 °F) Property has not been measured. Not applicable, material is a gas. Not explosive. Not oxidising.
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition Decompositie Viscosity Explosive pro Oxidising pro 9.2. Other inf	a) y (water) fficient ater) n temperature on temperature operties operties formation	Slightly soluble in water. 1.77 432 °C (809.6 °F) Property has not been measured. Not applicable, material is a gas. Not explosive. Not oxidising.
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition Decomposition Viscosity Explosive pro Oxidising pro 9.2. Other inf Dynamic	a) y (water) fficient ater) n temperature on temperature operties operties formation a viscosity	Slightly soluble in water. 1.77 432 °C (809.6 °F) Property has not been measured. Not applicable, material is a gas. Not explosive. Not oxidising. 0.08 mPa.s (17.9 °C (64.22 °F))
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition Decompositie Viscosity Explosive pro Oxidising pro 9.2. Other inf Dynamic Heat of c 30B)	e) y (water) fficient ater) n temperature on temperature operties operties formation s viscosity combustion (NFPA	Slightly soluble in water. 1.77 432 °C (809.6 °F) Property has not been measured. Not applicable, material is a gas. Not explosive. Not oxidising. 0.08 mPa.s (17.9 °C (64.22 °F)) 44 kJ/g
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition Decompositie Viscosity Explosive pro Oxidising pro 9.2. Other inf Dynamic Heat of c 30B) Kinemati	a) y (water) fficient ater) n temperature on temperature operties formation a viscosity combustion (NFPA ic viscosity	Slightly soluble in water. 1.77 432 °C (809.6 °F) Property has not been measured. Not applicable, material is a gas. Not explosive. Not oxidising. 0.08 mPa.s (17.9 °C (64.22 °F)) 44 kJ/g Not applicable, material is a gas.
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition Decompositie Viscosity Explosive pro Oxidising pro 9.2. Other inf Dynamic Heat of c 30B) Kinemati Limiting Concent	;) y (water) fficient ater) n temperature on temperature operties operties formation : viscosity combustion (NFPA ic viscosity Oxygen ration (or LOC)	Slightly soluble in water. 1.77 432 °C (809.6 °F) Property has not been measured. Not applicable, material is a gas. Not explosive. Not oxidising. 0.08 mPa.s (17.9 °C (64.22 °F)) 44 kJ/g Not applicable, material is a gas. 9.8 %
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition Decompositie Viscosity Explosive pro Oxidising pro 9.2. Other inf Dynamic Heat of c 30B) Kinemati Limiting Concent	a) y (water) fficient ater) n temperature on temperature operties formation c viscosity combustion (NFPA ic viscosity Oxygen ration (or LOC) ar weight	Slightly soluble in water. 1.77 432 °C (809.6 °F) Property has not been measured. Not applicable, material is a gas. Not explosive. Not oxidising. 0.08 mPa.s (17.9 °C (64.22 °F)) 44 kJ/g Not applicable, material is a gas. 9.8 % 45 g/mol
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition Decompositio Viscosity Explosive pro Oxidising pro 9.2. Other inf Dynamic Heat of c 30B) Kinemati Limiting Concent Molecula	;) y (water) fficient ater) n temperature on temperature operties formation c viscosity combustion (NFPA ic viscosity Oxygen ration (or LOC) ar weight size	Slightly soluble in water. 1.77 432 °C (809.6 °F) Property has not been measured. Not applicable, material is a gas. Not explosive. Not oxidising. 0.08 mPa.s (17.9 °C (64.22 °F)) 44 kJ/g Not applicable, material is a gas. 9.8 % 45 g/mol Not applicable, material is a gas.
Solubility(ies Solubility Partition coe (n-octanol/wa Auto-ignition Decompositie Viscosity Explosive pro Oxidising pro 9.2. Other infi Dynamic Heat of c 30B) Kinemati Limiting Concent Molecula Particle s	a) y (water) fficient ater) n temperature on temperature operties formation viscosity combustion (NFPA ic viscosity Oxygen ration (or LOC) ar weight size volatile	Slightly soluble in water. 1.77 432 °C (809.6 °F) Property has not been measured. Not applicable, material is a gas. Not explosive. Not oxidising. 0.08 mPa.s (17.9 °C (64.22 °F)) 44 kJ/g Not applicable, material is a gas. 9.8 % 45 g/mol Not applicable, material is a gas. 100 %

SECTION 10: Stability and reactivity

10.1. Reactivity	Reacts violently with strong oxidants, nitrites, inorganic chlorides, chlorites and perchlorates causing fire and explosion hazard.
10.2. Chemical stability	Stable under normal temperature conditions and recommended use.
10.3. Possibility of hazardous reactions	Polymerization will not occur. May form explosive mixture with air. This product may react with oxidizing agents.
10.4. Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents. Halogens. Nitrates.

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.	
Information on likely route	s of exposure	
Inhalation	High concentrations: Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of co-ordination. Continued inhalation may result in unconsciousness.	
Skin contact	Contact with liquefied gas may cause frostbite.	
Eye contact	Contact with liquefied gas may cause frostbite.	
Ingestion	This material is a gas under normal atmospheric conditions and ingestion is unlikely.	
Symptoms	Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themself.	

11.1. Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.	
Product	Species	Test Results
Propane (CAS 74-98-6)		
Acute		
Inhalation		
Gas		
LC50	Rat	> 80000 ppm, 15 Minutes
Constituents	Species	Test Results
Propylene (CAS 115-07-1)		
Acute		
Inhalation		
Gas	D (
LC50	Rat	> 65000 ppm, 4 Hours
Skin corrosion/irritation	Based on available data, the classification	n criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification	n criteria are not met.
Respiratory sensitisation	Based on available data, the classification	n criteria are not met.
Skin sensitisation	Based on available data, the classification	n criteria are not met.
Germ cell mutagenicity	Based on available data, the classification	n criteria are not met.
Carcinogenicity	Based on available data, the classification	n criteria are not met.
IARC Monographs. Overall I	Evaluation of Carcinogenicity	
Propylene (CAS 115-07-1) 3 Not clas	sifiable as to carcinogenicity to humans.
Reproductive toxicity	Based on available data, the classification	n criteria are not met.
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.	
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.	
Aspiration hazard	Not relevant, due to the form of the product.	
Mixture versus substance information	No information available.	
Other information	Exposure over a long period of time may cause central nervous system effects.	
SECTION 12: Ecological in	formation	
12.1. Toxicity	The product is not expected to be hazard	ous to the environment.
12.2. Persistence and degradability	Not relevant, due to the form of the product.	
12.3. Bioaccumulative potential	Not relevant, due to the form of the product.	
Partition coefficient	Not available.	

Propylene (CAS 115-07-1)	1.77		
Butane (CAS 106-97-8)	2.89		
Ethane (CAS 74-84-0)	1.81		
Bioconcentration factor (BCF)	Not available.		
12.4. Mobility in soil	Not relevant, due to the form of the product.		
12.5. Results of PBT and vPvB assessment	This substance does not meet vPvB / PBT criteria of Regulation (EC) No 1907/2006, Annex XIII.		
12.6. Other adverse effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.		

Substance Global Warming Potential per (Annex IV), Regulation 517/2014/EU on fluorinated greenhouse gases, as amended

Butane (CAS 106-97-8)	4
Ethane (CAS 74-84-0)	6
Propane (CAS 74-98-6)	3
Propylene (CAS 115-07-1)	2

SECTION 13: Disposal considerations

13.1. Waste treatment methods	
Residual waste	Dispose in accordance with all applicable regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	16 05 04* The waste code should be assigned in discussion between the user, the producer and the waste disposal company. The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Use the container until empty. Do not dispose of any non-empty container. Empty containers have residual vapor that is flammable and explosive. Cylinders should be emptied and returned to a hazardous waste collection point. Do not puncture or incinerate even when empty. Dispose in accordance with all applicable regulations.
Special precautions	Dispose of in accordance with local regulations.

SECTION 14: Transport information

ADR

	•		
	14.1. UN number	UN1978	
	14.2. UN proper shipping	PROPANE	
	name		
	14.3. Transport hazard class(es)		
	Class	2.1	
	Subsidiary hazard	-	
	Label(s)	2.1	
	Hazard No. (ADR)	23	
	Tunnel restriction code	B/D	
	14.4. Packing group	-	
	14.5. Environmental hazards	No.	
	14.6. Special precautions	Read safety instructions, SDS and emergency procedures before handling.	
	for user		
RID			
	14.1. UN number	UN1978	
	14.2. UN proper shipping	PROPANE	
	name		
	14.3. Transport hazard class(es)		
	Class	2.1	
	Subsidiary hazard	-	
	Label(s)	2.1(+13)	
	14.4. Packing group	-	
	14.5. Environmental hazards	No.	
	14.6. Special precautions	Read safety instructions, SDS and emergency procedures before handling.	
	for user		
ADI	4		
	14.1. UN number	UN1978	
	14.2. UN proper shipping	PROPANE	
	name		
	14.3. Transport hazard class(es)		
	Class	2.1	
	Subsidiary hazard	-	

Propane

Label(s) 2.1 14.4. Packing group 14.5. Environmental hazards No. 14.6. Special precautions Read safety instructions, SDS and emergency procedures before handling. for user ΙΔΤΔ UN1978 14.1. UN number 14.2. UN proper shipping Propane name 14.3. Transport hazard class(es) Class 2.1 Subsidiary hazard 14.4. Packing group 14.5. Environmental hazards No. ERG Code 101 14.6. Special precautions Read safety instructions, SDS and emergency procedures before handling. for user IMDG 14.1. UN number UN1978 14.2. UN proper shipping PROPANE name 14.3. Transport hazard class(es) Class 2.1 Subsidiary hazard _ 14.4. Packing group 14.5. Environmental hazards Marine pollutant No F-D, S-U EmS 14.6. Special precautions Read safety instructions, SDS and emergency procedures before handling. for user 14.7. Transport in bulk Not applicable. according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

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

Retained direct EU regulations

Regulation (EC) No.	1005/2009 on substances	that deplete the o	ozone layer, Annex I	and II, as amended
Not listed.				

- Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended
 - Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA Not listed.

Authorisations

Propane

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use, as amended - Conditions of restriction given for the associated entry number should be considered

Propylene (CAS 115-07-1)

Butane (CAS 106-97-8)

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

ANNEX 1, PART 1 Categories of dangerous substances Hazard categories in accordance with Regulation (EC) No 1272/2008 - P2 FLAMMABLE GASES

ANNEX 1, PART 2 Named dangerous substances

- 18. Liquefied flammable gases, Category 1 or 2 (including LPG) and natural gas

Other regulations

This product is classified and labelled in accordance with the retained CLP Regulation (EC) No 1272/2008, as amended for Great Britain. This Safety Data Sheet is compiled in accordance with REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758.

Use of this product by young persons under the age of 18 is not allowed in accordance with the Management of Health and Safety at Work Regulations 1999 [SI 1999/3242], as amended. Follow the requirements of the Control of Substances Hazardous to Health Regulations 2002 [SI 2002/2677], as amended, when using this material.

15.2. Chemical safety

No Chemical Safety Assessment has been carried out.

assessment

SECTION 16: Other information

List of abbreviations

	ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.
	ADR: Agreement concerning the International Carriage of Dangerous Goods by Road. CAS: Chemical Abstract Service.
	CEN: European Committee for Standardization.
	IATA: International Air Transport Association.
	IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.
	IMDG: International Maritime Dangerous Goods.
	MARPOL: International Convention for the Prevention of Pollution from Ships. PBT: Persistent, bioaccumulative and toxic.
	RID: Regulations concerning the International Carriage of Dangerous Goods by Rail. STEL: Short term exposure limit. TWA: Time Weighted Average.
	vPvB: Very persistent and very bioaccumulative.
References	ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices ECHA: European Chemical Agency. EPA: AQUIRE database HSDB® - Hazardous Substances Data Bank IARC Monographs. Overall Evaluation of Carcinogenicity National Toxicology Program (NTP) Report on Carcinogens NI M: Hazardous Substances Data Base
Information on evaluation method leading to the classification of mixture	Not applicable. The product is a substance.
Full text of any statements, which are not written out in full	
under sections 2 to 15	H220 Extremely flammable gas. H280 Contains gas under pressure; may explode if heated.
Training information	Follow training instructions when handling this material.
Disclaimer	All information in this Safety Data Sheet is believed to be accurate and reliable. However, no guarantee or warranty of any kind is made with regard to the accuracy of information or the suitability of the recommendations contained herein. It is the user's responsibility to assess the safety and toxicity of this product under their own conditions of use and to comply with all applicable laws and regulations.