

Butane Gas Cartridge

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 4/7/2016

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Supersedes:

Version: 1.0

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

1.1. Product identifier

Product form : LPG(Butane gas cartridge)

Product name : Butane Gas Cartridge

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

1.2.1. Relevant identified uses

Use of the substance/mixture : For use Only in Portable Gas Appliances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

SHOV GMBH
DAIMLERSTR. 9, 71636
LUDWIGSBURG GERMANY
Tel + 49 172 993 4414
E-mail: murat@shov.de
info@shov.de
www.shov.de

Manufacturer

M.I.T. LIMITED
103-1206 Park Tower, 67 Seobinggo-
Ro, Yongsan-Gu, Seoul
04385 Korea

1.4. Emergency telephone number

Emergency number : For dangerous substances [dangerous goods] incident
Spill, leak, fire, exposure or accident
Call CHEMTREC Day or Night
+1 703-741-5970 CCN807424

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable gases, Category 1 H220

Gases under pressure : Compressed gas H280

Specific target organ toxicity (single exposure) Category 3 H336

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

According to Art. 23 and section 1.3.2 in Annex I of Regulation (EC) No. 1272/2008 [CLP], regarding derogations from labelling requirements,

« If propane, butane and liquefied petroleum gas or a mixture containing these substances classified in accordance with the criteria of this Annex, is placed on the market in closed refillable cylinders or in non-refillable cartridges within the scope of EN 417 as fuel gases which are only released for combustion (current edition of EN 417, relating to 'Non-refillable metallic gas cartridges for liquefied petroleum gases, with or without a valve, for use with portable appliances; construction, inspection, testing and marking'), these cylinders or cartridges shall only be labelled with the appropriate pictogram and the hazard and precautionary statements concerning flammability.».

Hazard pictograms (CLP) :



GHS02

Signal word (CLP) : Danger

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Hazard statements (CLP)	: H220 - Extremely flammable gas
Precautionary statements (CLP)	: P102 - Keep out of reach of children P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely P381 - Eliminate all ignition sources if safe to do so P403 - Store in a well-ventilated place

2.3. Other hazards

P235	Keep cool.
P251	Do not pierce or burn, even after use.
P402	Store in a dry place.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C.

The gas cartridge may only be used in combination with appropriate gas appliances.

Follow the instructions delivered with the device.

Changing cartridges: close the gas valve on the device.

Remove the cartridge only in a well-ventilated area.

Replace the seal on damage or loss.

WARNING: DO NOT REFILL.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
butane (Note C)(Note U)	(CAS No) 106-97-8 (EC no) 203-448-7 (EC index no) 601-004-00-0	50 - 70	Flam. Gas 1, H220 Liquefied gas, H280
isobutane (Note C)(Note U)	(CAS No) 75-28-5 (EC no) 200-857-2 (EC index no) 601-004-00-0	25 - 35	Flam. Gas 1, H220 Press. Gas
Propane (Note U)	(CAS No) 74-98-6 (EC no) 200-827-9 (EC index no) 601-003-00-5	0 - 5	Flam. Gas 1, H220 Press. Gas

Note 1 : The Liquefied Petroleum Gas(Butane & Propane) are exempted from pre registration and registration (Annex V (7)).

Annex V to the REACH Regulation lists types of substances that are exempted from the registration requirements. Registration is deemed appropriate or unnecessary for these substances. The Annex includes minerals, ores or concentrates, cement clinkers, natural gases, liquefied petroleum gas, natural gas condensates, process gases and components thereof, crude oil, coke, coal, if they are not chemically modified.

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note U : 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.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Maintain airway. In case of irregular breathing or respiratory arrest provide artificial respiration. If unconscious, place in the recovery position and seek medical advice.
First-aid measures after skin contact	: Wash off immediately with soap and plenty of water. If skin irritation occurs: Get medical advice/attention. If there are symptoms such as frostbite and freezing, take the following process: warm the affected part with warm water of 41.7 °C. Gently wrap the affected part in blanket. Take an immediate medical action.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention if you feel unwell.
First-aid measures after ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical advice (show the label where possible).

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

Symptoms/injuries after inhalation	: In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination. In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation.
Symptoms/injuries after skin contact	: Contact with the product may cause cold burns or frostbite.
Symptoms/injuries after eye contact	: May cause frostbite on contact with the liquefied gas.
Symptoms/injuries after ingestion	: May cause gastric irritation.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Dry powder. Carbon dioxide (CO ₂). Alcohol resistant foam. Water spray.
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Extremely flammable gas. Heavier than air, vapours may travel long distances along ground, ignite and flash back to source.
Explosion hazard	: Contains gas under pressure; may explode if heated. Flammable or explosive vapour/air mixtures may be formed.
Hazardous decomposition products in case of fire	: Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide.

5.3. Advice for firefighters

Firefighting instructions	: Cool down the containers exposed to heat with a water spray. Move undamaged containers from immediate hazard area if it can be done safely. Spray from a distance to keep far away from any possible explosion.
Protective equipment for firefighters	: Extra personal protection: complete protective clothing including self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.
Emergency procedures	: Immediately contact emergency personnel.

6.1.2. For emergency responders

Protective equipment	: Use suitable breathing apparatus. Avoid contact with skin and eyes.
Emergency procedures	: Evacuate area. Exclude sources of ignition and ventilate the area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Stop leak if safe to do so.
Methods for cleaning up	: Eliminate every possible source of ignition. Contain and/or absorb spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Dispose in a safe manner in accordance with local/national regulations. Ventilate affected area.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Do not handle until all safety precautions have been read and understood. Keep away from sources of ignition - No smoking. Content under pressure. Do not crush, puncture or incinerate. Avoid contact with eyes. Avoid breathing gas, mist, spray, vapours. Do not use in confined spaces. Handle empty containers with care because residual vapours are flammable.
Hygiene measures	: Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a cool dry place. Keep container tightly closed. Keep away from open flames, hot surfaces and sources of ignition.
Storage temperature	: ≤ 40 °C
Heat and ignition sources	: Store away from direct sunlight or other heat sources. Remove all sources of ignition.

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Prohibitions on mixed storage : Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

isobutane (75-28-5)		
Austria	MAK (mg/m ³)	1900 mg/m ³
Austria	MAK (ppm)	800 ppm
Belgium	Limit value (ppm)	1000
Finland	HTP-arvo (8h) (mg/m ³)	1900 mg/m ³
Finland	HTP-arvo (8h) (ppm)	800 ppm
Finland	HTP-arvo (15 min)	2400 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	1000 ppm
France	VME (mg/m ³)	1900 mg/m ³
France	VME (ppm)	800 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	2400 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	1000 ppm
Switzerland	VME (mg/m ³)	1900 mg/m ³
Switzerland	VME (ppm)	800 ppm
Switzerland	VLE (mg/m ³)	7200 mg/m ³
Switzerland	VLE (ppm)	3200 ppm
USA - ACGIH	ACGIH TWA (ppm)	1000 ppm
USA - ACGIH	ACGIH STEL (ppm)	1000 ppm
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	1900 mg/m ³
USA - NIOSH	NIOSH REL (TWA) (ppm)	800 ppm
Propane (74-98-6)		
Austria	MAK (mg/m ³)	1800 mg/m ³
Austria	MAK (ppm)	1000 ppm
Austria	MAK Short time value (mg/m ³)	3600 mg/m ³
Austria	MAK Short time value (ppm)	2000 ppm
Belgium	Limit value (ppm)	1000 ppm
Denmark	Grænseværdie (langvarig) (mg/m ³)	1800 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	1000 ppm
Denmark	Grænseværdie (kortvarig) (mg/m ³)	3600 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	2000 ppm
Finland	HTP-arvo (8h) (mg/m ³)	1500 mg/m ³
Finland	HTP-arvo (8h) (ppm)	800 ppm
Finland	HTP-arvo (15 min)	2000 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	1100 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	1800 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	1000 ppm
Latvia	OEL TWA (mg/m ³)	1800 mg/m ³
Latvia	OEL TWA (ppm)	1000 ppm
Poland	NDS (mg/m ³)	1800 mg/m ³
Norway	Grenseverdier (AN) (mg/m ³)	900 mg/m ³
Norway	Grenseverdier (AN) (ppm)	500 ppm
Switzerland	VME (mg/m ³)	1800 mg/m ³
Switzerland	VME (ppm)	1000 ppm
Switzerland	VLE (mg/m ³)	7200 mg/m ³
Switzerland	VLE (ppm)	4000 ppm
Canada (Quebec)	VEMP (mg/m ³)	1800 mg/m ³
Canada (Quebec)	VEMP (ppm)	1000 ppm
USA - ACGIH	ACGIH TWA (ppm)	1000 ppm

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Propane (74-98-6)		
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	1800 mg/m ³
USA - NIOSH	NIOSH REL (TWA) (ppm)	1000 ppm
USA - OSHA	Local name	Propane
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	1800 mg/m ³
USA - OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
butane (106-97-8)		
Austria	MAK (mg/m ³)	1900 mg/m ³
Austria	MAK (ppm)	800 ppm
Austria	MAK Short time value (mg/m ³)	3800 mg/m ³
Austria	MAK Short time value (ppm)	1600 ppm
France	Local name	n-Butane
France	VME (mg/m ³)	1900 mg/m ³
France	VME (ppm)	800 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	2400 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	1000 ppm
Spain	VLA-ED (mg/m ³)	1935 mg/m ³
Spain	VLA-ED (ppm)	800 ppm
United Kingdom	Local name	Butane
United Kingdom	WEL TWA (mg/m ³)	1450 mg/m ³
United Kingdom	WEL TWA (ppm)	600 ppm
United Kingdom	WEL STEL (mg/m ³)	1810 mg/m ³
United Kingdom	WEL STEL (ppm)	750 ppm
United Kingdom	Remark (WEL)	Carc (Capable of causing cancer and/or heritable genetic damage. See paragraphs 49–51), (only applies if Butane contains more than 0.1% of buta-1,3-diene)
Switzerland	VME (mg/m ³)	1900 mg/m ³
Switzerland	VME (ppm)	800 ppm
Australia	TWA (mg/m ³)	1450 mg/m ³
Australia	TWA (ppm)	600 ppm
Australia	STEL (mg/m ³)	1810 mg/m ³
Australia	STEL (ppm)	750 ppm
Canada (Quebec)	VEMP (mg/m ³)	1900 mg/m ³
Canada (Quebec)	VEMP (ppm)	800 ppm
USA - ACGIH	ACGIH TWA (ppm)	1000 ppm
USA - ACGIH	ACGIH STEL (ppm)	1000 ppm

8.2. Exposure controls

Appropriate engineering controls	: Provide adequate ventilation. Use explosion-proof ventilating equipment. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Personal protective equipment	: Gloves. Safety glasses.
Hand protection	: Wear suitable gloves tested to EN374
Eye protection	: Chemical goggles or safety glasses. DIN EN 166
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. gas filtering equipment (EN 141)



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Gas

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Colour	: Colourless.
Odour	: Faint odour.
Odour threshold	: No data available
pH	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: -187 - -138 °C (from different components values)
Freezing point	: No data available
Boiling point	: -42 - -1 °C (from different components values)
Flash point	: -104 - -60 °C (from different components values)
Auto-ignition temperature	: 287 - 466 °C (based on different components values)
Decomposition temperature	: No data available
Flammability (solid, gas)	: Extremely flammable gas
Vapour pressure	: 1557 - 5625 mm Hg @ 20 °C (based on different components values)
Relative vapour density at 20 °C	: 1.5 - 2.6 (based on different components values)
Relative density	: 0.501 - 0.578 g/cm ³ @ 25 °C (based on different components values)
Solubility	: No data available
Log Pow	: 2.36 - 2.89 (based on different components values)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 1.8 - 2.2 vol % (based on different components values) 8.4 - 9.5 vol % (based on different components values)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use. Extremely flammable gas. May form flammable/explosive vapour-air mixture.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

heat/sparks/open flames/hot surfaces. Direct sunlight.

10.5. Incompatible materials

Strong oxidizing agents. nitric acid. chlorine dioxide.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Butane Gas Cartridge	
LC50 inhalation rat (mg/l)	658000 mg/m ³

Skin corrosion/irritation : Not classified

pH: Not applicable

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)

pH: Not applicable

Additional information : Not irritating to rabbits on ocular application

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause drowsiness or dizziness.

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Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

Butane Gas Cartridge

Persistence and degradability	not applicable.
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12.3. Bioaccumulative potential

Butane Gas Cartridge

Log Pow	2.36 - 2.89 (based on different components values)
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12.4. Mobility in soil

Butane Gas Cartridge

Ecology - soil	Adsorbs into the soil. Low mobility (soil).
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not incinerate containers, even when empty. Dispose of contents/container to comply with applicable local, national and international regulations.

Waste disposal recommendations : Handle empty containers with care because residual vapours are flammable.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 2037

UN-No. (IMDG) : 2037

UN-No. (IATA) : 2037

UN-No. (ADN) : 2037

UN-No. (RID) : 2037

14.2. UN proper shipping name

Proper Shipping Name (ADR) : RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)

Proper Shipping Name (IMDG) : RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)

Proper Shipping Name (IATA) : Gas cartridges

Proper Shipping Name (ADN) : RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)

Proper Shipping Name (RID) : RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)

Transport document description : UN 2037 RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES), 2.1, (D)

Transport document description (IMDG) : UN 2037 RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES), 2.1

Transport document description (IATA) : UN 2037 Gas cartridges, 2.1

Transport document description (ADN) : UN 2037 RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES), 2.1

Transport document description (RID) : UN 2037 RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES), 2.1

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 2.1

Danger labels (ADR) : 2.1

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IMDG

Transport hazard class(es) (IMDG) : 2.1
Danger labels (IMDG) : 2.1



IATA

Transport hazard class(es) (IATA) : 2.1
Hazard labels (IATA) : 2.1



ADN

Transport hazard class(es) (ADN) : 2.1
Danger labels (ADN) : 2.1



RID

Transport hazard class(es) (RID) : 2.1
Danger labels (RID) : 2.1



14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : 5F

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Special provisions (ADR)	: 191, 303, 344
Limited quantities (ADR)	: 1I
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P003
Special packing provisions (ADR)	: PP17, RR6
Mixed packing provisions (ADR)	: MP9
Transport category (ADR)	: 2
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV9, CV12
Special provisions for carriage - Operation (ADR)	: S2
Tunnel restriction code (ADR)	: D

- Transport by sea

Special provisions (IMDG)	: 191, 277, 303, 344
Limited quantities (IMDG)	: SP277
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P003
Special packing provisions (IMDG)	: PP17
EmS-No. (Fire)	: F-D
EmS-No. (Spillage)	: S-U
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Normally contain mixtures of liquefied Butane and Propane in various proportions for use in camping stoves, etc.
MFAG-No	: 126

- Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Y203
PCA limited quantity max net quantity (IATA)	: 1kg
PCA packing instructions (IATA)	: 203
PCA max net quantity (IATA)	: 1kg
CAO packing instructions (IATA)	: 203
CAO max net quantity (IATA)	: 15kg
Special provisions (IATA)	: A167
ERG code (IATA)	: 10L

- Inland waterway transport

Classification code (ADN)	: 5F
Special provisions (ADN)	: 191, 303, 344
Limited quantities (ADN)	: 1L
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1

- Rail transport

Classification code (RID)	: 5F
Special provisions (RID)	: 191, 303, 344
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P003
Special packing provisions (RID)	: PP17, RR6
Mixed packing provisions (RID)	: MP9
Transport category (RID)	: 2
Special provisions for carriage - Loading, unloading and handling (RID)	: CW9, CW12
Colis express (express parcels) (RID)	: CE2
Hazard identification number (RID)	: 23

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Class for fire hazard : Class I-1

Store unit : 1 liter

Classification remarks : F+ <Flam. Gas 1; Compressed gas>; Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

SDS	Safety Data Sheet
RID	Regulations concerning the International Carriage of Dangerous Goods by Rai
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
OECD	Organisation for Economic Co-operation and Development
NOEC	No-Observed Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
LOAEL	Lowest Observed Adverse Effect Level
LD50	Median lethal dose
LC50	Median lethal concentration
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
EC50	Median effective concentration
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
BCF	Bioconcentration factor
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
PNEC	Predicted No-Effect Concentration
vPvB	Very Persistent and Very Bioaccumulative
PBT	Persistent Bioaccumulative Toxic
DNEL	Derived-No Effect Level

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	CAS (Chemical Abstracts Service) number
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Other information : The information presented in this Safety Data Sheet is based on current knowledge and is believed to be complete and accurate. It describes the product for the purposes of health, safety and environment requirements only and shall, therefore, be used only as a guide. The data refers to a specific product and may not be valid for combined uses with other products. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The Supplier of this SDS shall not be responsible for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices.

Full text of H- and EUH-statements:

Flam. Gas 1	Flammable gases, Category 1
Liquefied gas	Gases under pressure : Liquefied gas
Press. Gas	Gases under pressure
H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated
H336	May cause drowsiness or dizziness

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

M. G. Choi

M. I. T LIMITED
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