SAFETY DATA SHEET RIMAC BUTANGAS

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

1.1. Product identifier

Product name RIMAC BUTANGAS

Product number 401512

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

Identified uses Gas recharging

1.3. Details of the supplier of the safety data sheet

Supplier SISAB Svetsekonomi i Skövde AB

Box 197 549 37 Skövde 0500-41 51 00 info@sisab.info

1.4. Emergency telephone number

National emergency telephone 112

number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Aerosol 1 - H222, H229

Health hazards Not Classified
Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements H222 Extremely flammable aerosol.

H229 Pressurised container: may burst if heated.

Precautionary statements P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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BUTANE 70-100%

CAS number: 106-97-8 EC number: 203-448-7 REACH registration number: 01-

2119474691-32

Classification

Flam. Gas 1 - H220

PROPANE 5-7.49%

CAS number: 74-98-6 EC number: 200-827-9 REACH registration number: 01-

2119486944-21

Classification

Flam. Gas 1 - H220

PENTANE 1-1.99%

CAS number: 109-66-0 EC number: 203-692-4 REACH registration number: 01-

2119459286-30-0000

Classification

Flam. Liq. 1 - H224 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Get medical attention if any discomfort continues.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for

breathing.

Ingestion Drink a few glasses of water or milk. Do not induce vomiting.

Skin contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water. Get medical attention if any discomfort continues.

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

General information Solvent abuse can kill instantly.

Inhalation Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion May cause nausea, headache, dizziness and intoxication.

Skin contact May cause skin disorders if contact is repeated or prolonged.

Eye contact May cause temporary eye irritation.

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

Notes for the doctor No specific recommendations.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing media Extinguish with foam, carbon dioxide or dry powder.

5.2. Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up.

Extremely flammable.

5.3. Advice for firefighters

Protective actions during

Containers close to fire should be removed or cooled with water.

firefighting

Special protective equipment

Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus

for firefighters (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Large Spillages: Contain and absorb spillage with sand, earth or other non-combustible

material. Small Spillages: Wipe away with paper or textile fabric.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Keep away from heat, sparks and open flame. Protect against direct sunlight. Avoid eating,

drinking and smoking when using the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Keep

container dry.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

BUTANE

Long-term exposure limit (8-hour TWA): WEL 600 ppm 1450 mg/m³ Short-term exposure limit (15-minute): WEL 750 ppm 1810 mg/m³

PROPANE

Short-term exposure limit (15-minute): WEL No reference standard

PENTANE

Long-term exposure limit (8-hour TWA): WEL 600 ppm 1800 mg/m³

Short-term exposure limit (15-minute): WEL

WEL = Workplace Exposure Limit

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PENTANE (CAS: 109-66-0)

DNEL Workers - Dermal; Long term systemic effects: 432 mg/kg/day

> Workers - Inhalation; Long term systemic effects: 300 mg/m³ Consumer - Dermal; Long term systemic effects: 214 mg/kg/day Consumer - Inhalation; Long term systemic effects: 214 mg/kg/day

PNEC Fresh water; 0,23 mg/l

> marine water; 0,23 mg/l Intermittent release; 0,88 mg/l

STP; 3,6 mg/l

Sediment (Freshwater); 1,2 mg/kg/day

Soil; 0,55 mg/kg

8.2. Exposure controls

Protective equipment







Appropriate engineering

controls

All handling should only take place in well-ventilated areas.

Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates

eye contact is possible. Wear chemical splash goggles.

Hand protection Hand protection not required.

Other skin and body

protection

Wear suitable protective equipment for prolonged exposure and/or high concentrations of

vapours, spray or mist.

Hygiene measures Wash at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection No specific recommendation made, but chemical cartridge protection may still be required for

organic dusts/vapours known to be toxic.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Aerosol.

Colour Colourless.

Odour Mild.

Odour threshold Not determined.

pН Not determined.

Melting point Not determined.

Initial boiling point and range Not determined.

Technical impossibility to obtain the data. Flash point

Evaporation rate Not determined.

Evaporation factor Not determined.

Flammability (solid, gas) Not determined.

Upper/lower flammability or

explosive limits

Not determined.

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Other flammability Not determined.

Vapour pressure Not determined.

Vapour density Not determined.

Relative density ~0,6

Bulk density

Not determined.

Solubility(ies)

Soluble in water.

Partition coefficient

Not determined.

Auto-ignition temperature Not determined.

Decomposition Temperature Not determined.

Viscosity Not determined.

Explosive properties Not determined.

Explosive under the influence

of a flame

e Yes

Oxidising properties Not determined.

9.2. Other information

Other information Not relevant.

Refractive index

Particle size

Not determined.

Molecular weight

Not determined.

Volatility

Highly volatile.

Saturation concentration Not determined.

Critical temperature Not determined.

Volatile organic compound No information required.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous

reactions

Not known.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a

hazardous situation.

10.6. Hazardous decomposition products

RIMAC BUTANGAS

Hazardous decomposition

products

Not known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects No data is available regarding the preparation it self.

Acute toxicity - oral

Notes (oral LD₅o) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisationBased on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitroDoes not contain any substances known to be mutagenic.

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Reproductive toxicity

Reproductive toxicity - fertility Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Not relevant.

General information Prolonged and repeated contact with solvents over a long period may lead to permanent

health problems.

Inhalation Vapours have a narcotic effect. Symptoms following overexposure may include the following:

 $Headache.\ Fatigue.\ Dizziness.\ Nausea,\ vomiting.\ May\ cause\ respiratory\ system\ irritation.$

Ingestion May cause irritation. Symptoms following overexposure may include the following: Stomach

pain. Nausea, vomiting. Diarrhoea.

Skin contact May cause skin disorders if contact is repeated or prolonged.

Eye contact May cause temporary eye irritation.

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Acute and chronic health hazards

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems. Prolonged or repeated exposure to vapours in high concentrations may cause the following adverse effects: Nausea, vomiting. Headache.

Toxicological information on ingredients.

BUTANE

Acute toxicity - oral

Notes (oral LD₅₀) Not applicable.

Acute toxicity - dermal

Notes (dermal LD₅₀) Not applicable.

Acute toxicity - inhalation

Acute toxicity inhalation

20.0

(LC₅₀ vapours mg/l)

Notes (inhalation LC50)

PROPANE

Acute toxicity - oral

Notes (oral LD₅₀) Not applicable.

Acute toxicity - dermal

Notes (dermal LD₅₀) Not applicable.

Acute toxicity - inhalation

Acute toxicity inhalation 20.0

(LC50 vapours mg/l)

Notes (inhalation LC50)

PENTANE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 400.0

mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 3,000.0

mg/kg)

Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation 364.0

(LC₅₀ vapours mg/l)

Species Rat

ATE inhalation (vapours

mg/l)

364.0

SECTION 12: Ecological information

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Ecotoxicity There are no data on the ecotoxicity of this product.

12.1. Toxicity

Toxicity No data is available regarding the preparation itself.

Ecological information on ingredients.

BUTANE

Acute aquatic toxicity

Acute toxicity - fish Highly volatile.

LC50, 96 hours: 24.11 mg/l,

Acute toxicity - aquatic

Highly volatile.

invertebrates EC₅₀, 48 hours: 14.22 mg/l, Daphnia magna

PROPANE

Acute aquatic toxicity

Acute toxicity - aquatic Highly volatile.

invertebrates EC₅₀, 48 hours: 27.14 mg/l,

,:,

Acute toxicity - aquatic

plants

PENTANE

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 4,26 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: 2,7-9,1 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

IC₅₀, 72 hours: 7,51 mg/l, Selenastrum capricornutum

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

BUTANE

Persistence and

degradability

The product is readily biodegradable.

PROPANE

Persistence and

degradability

The product is readily biodegradable.

Biodegradation Water -:

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

RIMAC BUTANGAS

BUTANE

Bioaccumulative potential The product is not bioaccumulating.

PROPANE

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient :

PENTANE

Bioaccumulative potential BCF: 171,

Partition coefficient log Pow: 3,4

12.4. Mobility in soil

Mobility No information available

Ecological information on ingredients.

BUTANE

Mobility The product contains volatile organic compounds (VOCs) which will evaporate

easily from all surfaces.

PROPANE

Mobility The product contains volatile organic compounds (VOCs) which will evaporate

easily from all surfaces.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB

assessment

Disposal methods

This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects No information required.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information The manufacturer of this product complies with the rules and regulations of the European

Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste, by paying packaging fees for disposal and recycling of packaging waste.

packaging waste, by paying packaging lees for disposal and recycling of packaging waste

The plastic lid and valve are sorted as plastic. Empty aerosols are sorted as scrap metal. Residues and non empty containers should be taken care of as hazardous waste according to

local and national regulations.

Waste class Non empty containers: EWC code 14 06 03*

Empty containers: EWC code 15 01 04.

SECTION 14: Transport information

General Aerosols may be carried domestically as limited quantities (1L) as long as each package

does not exceed 30 kg in cardboard boxes or 20 kg on trays with shrink- or stretch wrapping. Each package shall be marked with diamond-shaped area, the top and bottom part is black,

surrounded by a line that measures at least 100 mm x 100 mm.

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14.1. UN number

UN No. (ADR/RID) 1950
UN No. (IMDG) 1950
UN No. (ICAO) 1950
UN No. (ADN) 1950

14.2. UN proper shipping name

Proper shipping name AEROSOLS

(ADR/RID)

Proper shipping name (IMDG) AEROSOLS
Proper shipping name (ICAO) AEROSOLS
Proper shipping name (ADN) AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class 2.1

ADR/RID classification code 5F

ADR/RID label 2.1

IMDG class 2.1

ICAO class/division 2.1

ADN class 2.1

Transport labels



14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-D, S-U

ADR transport category 2

Tunnel restriction code (D)

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

 $\label{thm:condingto} \textbf{Transport in bulk according to} \quad \textbf{Not relevant}.$

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

RIMAC BUTANGAS

National regulations COUNCIL DIRECTIVE of may 1975 on the approximation of the laws of the Member States

relating to aerosol dispensers.

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18

December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of

Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as

amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information A review of safety data sheet with staff to manage the product recommended.

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Issued by Björkstedt

Revision date 23/09/2019

Revision 1

SDS number 21402

Hazard statements in full H220 Extremely flammable gas.

H222 Extremely flammable aerosol.

H224 Extremely flammable liquid and vapour. H229 Pressurised container: may burst if heated. H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.