

**ADDIPURE n-Butane**

Creation date 30th July 2021  
Revision date Version 1.0

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

**1.1. Product identifier**  
Substance / mixture ADDIPURE n-Butane  
Chemical name substance  
butane  
CAS number 106-97-8  
Index number 601-004-00-0  
EC (EINECS) number 203-448-7  
Registration number 01-2119474691-32

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Substance's intended use**

Extraction agent.

**Substance uses advised against**

The product should not be used in ways other than those referred in Section 1.

**1.3. Details of the supplier of the safety data sheet****Supplier**

Name or trade name ADDITEQ s.r.o  
Address Prague Marina, V přístavu 12, Praha 7, 17000  
Czech Republic  
Identification number (CRN) 24825026  
Phone +420 222 520 870

**Competent person responsible for the safety data sheet**

Name Hutter Roger Jakob Martin  
E-mail hutter@additeq.com

**1.4. Emergency telephone number**

National poisoning information centre, Beaumont Hospital, PO Box 1297, Beaumont Road Dublin 9, tel: healthcare professionals: +353 (01) 809 2566 (24 hour service), members of public: +353 (01) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week).

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification of the substance in accordance with Regulation (EC) No 1272/2008**

The substance is classified as dangerous.

Aerosol 1, H222, H229

Full text of all classifications and hazard statements is given in the section 16.

**Most serious adverse physico-chemical effects**

Extremely flammable aerosol. Pressurised container: May burst if heated.

**2.2. Label elements****Hazard pictogram****Signal word**

Danger

**Dangerous substance**butane  
(Index: 601-004-00-0; CAS: 106-97-8)**Hazard statements**

H222 Extremely flammable aerosol.

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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.
- P260 Do not breathe spray.
- P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

**2.3. Other hazards**

Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended. Substance does not meet the criteria for substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Risk of frostbite.

**SECTION 3: Composition/information on ingredients**

**3.1. Substances**

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 601-004-00-0 CAS: 106-97-8 EC: 203-448-7 Registration number: 01-2119474691-32	<b>substance main component</b> butane	<100	Flam. Gas 1A, H220 Press. Gas (liquefied gas), H280	1, 2, 3

**Notes**

- 1 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.
  - 2 Note U (Table 3): 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. The following codes are assigned:  
  
    - Press. Gas (Comp.)
    - Press. Gas (Liq.)
    - Press. Gas (Ref. Liq.)
    - Press. Gas (Diss.)

Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).
  - 3 Substance with a Union workplace exposure limit.
- Full text of all classifications and hazard statements is given in the section 16.

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled.

**If inhaled**

Transfer the affected person to the fresh air and ensure calm environment for body and mind. Provide medical treatment if irritation, dyspnoea or other symptoms persist.

**If on skin**

Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Thaw frosted parts with lukewarm water. Do not rub affected area. In case of major frost injuries, please contact your doctor.

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**If in eyes**

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should be continued for 10-30 minutes from the inner to the outer eye corner to make sure that the other eye is not involved. Provide medical treatment, specialized if possible.

**If swallowed**

Unlikely. DO NOT INDUCE VOMITING! Rinse out the mouth with water and provide 2-5 dL of water. Provide medical treatment if the person has any health problems. Bring an original container with the label and the Safety Data Sheet of the given substance as appropriate.

**4.2. Most important symptoms and effects, both acute and delayed****If inhaled**

Possible irritation of airways, cough, headache.

**If on skin**

Contains refrigerated gas; may cause cryogenic burns or injury.

**If in eyes**

When intruding eyes, it can evoke irritation.

**If swallowed**

Not expected.

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

Symptomatic treatment.

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

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

**Unsuitable extinguishing media**

Water - full jet.

**5.2. Special hazards arising from the substance or mixture**

Vapours mixed up with air can be explosive. The heat from fire increases inner pressure in containers and can cause their bursting or explosion. The exploding containers could fly up to the distance several ten meters. In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

**5.3. Advice for firefighters**

Evacuate area. Use a self-contained breathing apparatus and full-body protective clothing. Closed containers with the product near the fire should be cooled with water. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

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

Extremely flammable aerosol. Pressurised container: May burst if heated. Vapours mixed up with air can be explosive. Remove all ignition sources; provide sufficient ventilation. No smoking. Do not inhale aerosols. Use personal protective equipment for work. Prevent contact with skin and eyes.

**6.2. Environmental precautions**

Prevent contamination of the soil and entering surface or ground water.

**6.3. Methods and material for containment and cleaning up**

Evacuate area. Ventilate the room. Prevent other leakage. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies.

**6.4. Reference to other sections**

See the Section 7, 8 and 13.

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

Do not inhale aerosols. Use only in a well-ventilated area. Do not eat, drink or smoke when using this product. Prevent contact with skin and eyes. Wash hands and exposed parts of the body thoroughly after handling. Pressurised container: May burst if heated. Protect from sunlight. Do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Take action to prevent static discharges. Read label before use. To avoid risks to human health and the environment, comply with the instructions for use.

**7.2. Conditions for safe storage, including any incompatibilities**

Recommended storage temperature is from +5°C to +30°C. Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep out of reach of children.

**The specific requirements or rules relating to the substance/mixture**

Solvent vapours are heavier than air and accumulate especially near the floor where they may form an explosive mixture with the air.

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

not available

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Ireland****2018 Code of Practice for the Chemical Agents Regulations**

Substance name (component)	Type	Value
butane (CAS: 106-97-8)	OELV 15 minutes	1000 ppm

**8.2. Exposure controls**

Follow the usual measures intended for health protection at work and especially for good ventilation. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

**Eye/face protection**

Under regular circumstances it is not necessary. Protective goggles. EN166 - Personal Eye Protection Standard.

**Skin protection**

Under regular circumstances it is not necessary. When handling in long-term or repeatedly, use protective gloves. EN ISO 374-1. Contaminated skin should be washed thoroughly. Other protection: protective workwear.

**Respiratory protection**

Under regular circumstances it is not necessary. Mask with a filter against organic vapours in a poorly ventilated environment.

**Thermal hazard**

Not available.

**Environmental exposure controls**

Observe usual measures for protection of the environment, see Section 6.2.

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

Physical state	gas
Colour	colourless
Odour	specific after solvents
Melting point/freezing point	applies to liquids and solids
Boiling point or initial boiling point and boiling range	<0 °C
butane (CAS: 106-97-8)	-1 °C
Flammability	Extremely flammable aerosol.
butane (CAS: 106-97-8)	extremely flammable gas
Lower and upper explosion limit	
bottom	>0 %
butane (CAS: 106-97-8)	1.4 %
upper	>0 %

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butane (CAS: 106-97-8)	9.6 %
Flash point	<0 °C
butane (CAS: 106-97-8)	-60 °C
Auto-ignition temperature	>0 °C
butane (CAS: 106-97-8)	287 °C
Decomposition temperature	not applicable
pH	gas
Kinematic viscosity	applies to liquids
Solubility in water	partially soluble
butane (CAS: 106-97-8)	0.061 g/l (20 °C)
Partition coefficient n-octanol/water (log value)	2.8 (butane, 20°C, pH 7)
Vapour pressure	>0
butane (CAS: 106-97-8)	0.12 MPa at 20 °C
Density and/or relative density	
Density	>0 g/cm <sup>3</sup>
butane (CAS: 106-97-8)	0.58 g/cm <sup>3</sup> at 0 °C
Relative vapour density	2.1 (air = 1)
Particle characteristics	applies to solids
Form	aerosol dispenser: spray aerosol
<b>9.2. Other information</b>	
Gas group	T2
Oxidising properties	The product has no oxidizing properties.
Explosive properties	The product does not have explosive properties but can be explosive when blended with air.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

When used in the standard way, there is not any dangerous reaction with other substances.

#### 10.2. Chemical stability

The product is stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

The product is stable under normal conditions. Vapours mixed up with air can be explosive.

#### 10.4. Conditions to avoid

Even short-time temperatures above 30°C. Protect against flames, sparks, overheating and against frost. Pressurised container: May burst if heated.

#### 10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents. Oxygen. Halogens. Halogenated hydrocarbons.

#### 10.6. Hazardous decomposition products

Not developed under normal uses.

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

not available

#### Acute toxicity

Based on available data the classification criteria are not met.

butane

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Inhalation	LC50	658 mg/l	4 hour	Rat	

#### Skin corrosion/irritation

Based on available data the classification criteria are not met.

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**Serious eye damage/irritation**

Based on available data the classification criteria are not met.

**Respiratory or skin sensitisation**

Based on available data the classification criteria are not met.

**Germ cell mutagenicity**

Based on available data the classification criteria are not met.

**Carcinogenicity**

Based on available data the classification criteria are not met.

**Reproductive toxicity**

Based on available data the classification criteria are not met.

**Toxicity for specific target organ - single exposure**

Based on available data the classification criteria are not met.

**Toxicity for specific target organ - repeated exposure**

Based on available data the classification criteria are not met.

**Aspiration hazard**

Based on available data the classification criteria are not met.

**11.2. Information on other hazards**

not available

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Acute toxicity**

Based on available data the classification criteria are not met.

butane

Parameter	Value	Time of exposure	Species	Environment
LC50	24.11-147.54 mg/l	96 hour	Fishes	Freshwater
LC50	14.22-69.43 mg/l	48 hour	Daphnia	Freshwater
EC50	7.71-19.37 mg/l	96 hour	Algae	Freshwater

**12.2. Persistence and degradability**

**Biodegradability**

butane

Parameter	Value	Time of exposure	Environment	Result
				Easily biodegradable

The substance is biodegradable.

**12.3. Bioaccumulative potential**

Not expected.

**12.4. Mobility in soil**

Not expected.

**12.5. Results of PBT and vPvB assessment**

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Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100.

**12.7. Other adverse effects**

Not available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification.

**Waste management legislation**

Ordinance on the European List of Waste (German Waste Catalogue Ordinance -Verordnung über das Europäische Abfallverzeichnis - AVV). Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

**Waste type code**

20 01 13 Solvents \*

**Packaging waste type code**

15 01 10 packaging containing residues of or contaminated by hazardous substances \*

(\*) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

**SECTION 14: Transport information****14.1. UN number or ID number**

UN 1950

**14.2. UN proper shipping name**

AEROSOLS

**14.3. Transport hazard class(es)**

2 Gases

**14.4. Packing group**

not relevant

**14.5. Environmental hazards**

not relevant

**14.6. Special precautions for user**

Reference in the Sections 4 to 8.

**14.7. Maritime transport in bulk according to IMO instruments**

not relevant

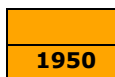
**Additional information**

Hazard identification No.

UN number

Classification code

Safety signs



5F

2.1



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### Road transport - ADR

Special provisions	190, 327, 344, 625
Limited quantities	1 L
Excepted quantities	E0

### Packaging

Packing instructions	P207, LP200
Special packing provisions	PP87, RR6, L2
Mixed packing provisions	MP9
Transport category	2
Tunnel restriction code	(D)

### Special provision for

packages	V14
loading, unloading and handling operation	CV9, CV12 S2

### Railway transport - RID

Special provisions	190, 327, 344, 625
Excepted quantities	E0

### Packaging

Packing instructions	P207, LP200
Special packing provisions	PP87, RR6, L2
Mixed packing provisions	MP9
Transport category	0

### Special provision for

packages	W 14
loading, unloading and handling	CW 9, CW 12

### Air transport - ICAO/IATA

Packaging instructions for limited amount	Y203
Packaging instructions passenger	203
Cargo packaging instructions	203

### Marine transport - IMDG

EmS (emergency plan)	F-D, S-U
MFAG	620

## SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out for the substance by the supplier.

## SECTION 16: Other information

### A list of standard risk phrases used in the safety data sheet

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.

### Guidelines for safe handling used in the safety data sheet

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.



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- |           |  |
|-----------|--|
| P211      | Do not spray on an open flame or other ignition source.                      |
| P251      | Do not pierce or burn, even after use.                                       |
| P260      | Do not breathe spray.  |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. |

**Other important information about human health protection**

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

**Key to abbreviations and acronyms used in the safety data sheet**

- |                        |   |
|------------------------|---|
| ADR                    | European agreement concerning the international carriage of dangerous goods by road               |
| BCF                    | Bioconcentration Factor   |
| CAS                    | Chemical Abstracts Service  |
| CLP                    | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures |
| EC                     | Identification code for each substance listed in EINECS   |
| EC50                   | Concentration of a substance when it is affected 50% of the population                            |
| EINECS                 | European Inventory of Existing Commercial Chemical Substances                                     |
| EmS                    | Emergency plan  |
| EU                     | European Union  |
| EuPCS                  | European Product Categorisation System  |
| IATA                   | International Air Transport Association   |
| IBC                    | International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals       |
| ICAO                   | International Civil Aviation Organization   |
| IMDG                   | International Maritime Dangerous Goods  |
| INCI                   | International Nomenclature of Cosmetic Ingredients  |
| ISO                    | International Organization for Standardization  |
| IUPAC                  | International Union of Pure and Applied Chemistry   |
| LC50                   | Lethal concentration of a substance in which it can be expected death of 50% of the population    |
| log Kow                | Octanol-water partition coefficient   |
| MARPOL                 | International Convention for the Prevention of Pollution from Ships                               |
| OEL                    | Occupational Exposure Limits  |
| PBT                    | Persistent, Bioaccumulative and Toxic   |
| ppm                    | Parts per million   |
| Press. Gas (Comp.)     | Gas under pressure: compressed gas  |
| Press. Gas (Diss.)     | Gas under pressure: dissolved gas   |
| Press. Gas (Liq.)      | Gas under pressure: liquefied gas   |
| Press. Gas (Ref. Liq.) | Gas under pressure: refrigerated liquefied gas  |
| REACH                  | Registration, Evaluation, Authorisation and Restriction of Chemicals                              |
| RID                    | Agreement on the transport of dangerous goods by rail   |
| UN                     | Four-figure identification number of the substance or article taken from the UN Model Regulations |
| UVCB                   | Substances of unknown or variable composition, complex reaction products or biological materials  |
| VOC                    | Volatile organic compounds  |
| vPvB                   | Very Persistent and very Bioaccumulative  |
| Aerosol                | Aerosol   |
| Flam. Gas              | Flammable gas   |
| Press. Gas             | Gases under pressure  |

**Training guidelines**

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

**Recommended restrictions of use**

not available

**Information about data sources used to compile the Safety Data Sheet**

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REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.  
REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

**More information**

Classification procedure - on basis of gas test data.

**Statement**

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.