

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 15.12.2022

Version number 4 (replaces version 3)

Revision: 15.12.2022

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

##### · 1.1 Product identifier

· Trade name: **829218**

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

No further relevant information available.

· Application of the substance / the mixture Activator

##### · 1.3 Details of the supplier of the safety data sheet

##### · Manufacturer/Supplier:

Rubix Engineering  
61, Avenue Tony Garnier  
69007 Lyon, France  
info-rubix-engineering@rubix.com

· Further information obtainable from: +33 (0)1.44.86.08.10

· 1.4 Emergency telephone number: GIZ-Nord, Göttingen, Germany (for medical advice in English) +4955119240

#### \* SECTION 2: Hazards identification

##### · 2.1 Classification of the substance or mixture

##### · Classification according to Regulation (EC) No 1272/2008



flame

Aerosol 1      H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



environment

Aquatic Chronic 2 H411      Toxic to aquatic life with long lasting effects.



Skin Irrit. 2      H315      Causes skin irritation.

STOT SE 3      H336      May cause drowsiness or dizziness.

Asp. Tox. 1      H304      May be fatal if swallowed and enters airways.

##### · 2.2 Label elements

##### · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

##### · Hazard pictograms



GHS02



GHS07



GHS09

· Signal word Danger

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### Hazard-determining components of labelling:

Naphtha (petroleum), hydrotreated light

### Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

### Precautionary statements

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.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P405 Store locked up.

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

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### Additional information:

Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.

### 2.3 Other hazards

### Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Description:** Mixture of substances listed below with nonhazardous additions.

#### Dangerous components:

|                                      |   |           |
|--------------------------------------|---|-----------|
| CAS: 106-97-8<br>EINECS: 203-448-7   | butane, pure<br>⚠ Flam. Gas 1, H220; ⚠ Acute Tox. 3, H331; Press. Gas (Comp.), H280   | 25-50%    |
| CAS: 64742-49-0<br>EINECS: 265-151-9 | Naphtha (petroleum), hydrotreated light<br>⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336 | 25-50%    |
| CAS: 74-98-6<br>EINECS: 200-827-9    | propane<br>⚠ Flam. Gas 1, H220; Press. Gas (Comp.), H280  | 10-25%    |
| CAS: 67-64-1<br>EINECS: 200-662-2    | acetone<br>⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336, EUH066  | ≥2.5-<10% |
| CAS: 75-28-5<br>EINECS: 200-857-2    | isobutane<br>⚠ Flam. Gas 1, H220; Press. Gas (Comp.), H280  | 2.5-10%   |
| CAS: 99-97-8<br>EINECS: 202-805-4    | N,N-dimethyl-p-toluidine<br>⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ STOT RE 2, H373; Aquatic Chronic 3, H412                    | ≤0.5%     |

**Additional information:** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:** If symptoms persist consult doctor.

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

Breathing difficulty

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

No further relevant information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

**For safety reasons unsuitable extinguishing agents:** Water with full jet

**5.2 Special hazards arising from the substance or mixture** No further relevant information available.

### 5.3 Advice for firefighters

**Protective equipment:** Wear self-contained respiratory protective device.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation

#### 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.

#### 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents

#### 6.4 Reference to other sections

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.  
Keep away from heat and direct sunlight.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.

#### Information about fire - and explosion protection:

Do not spray onto a naked flame or any incandescent material.  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights.  
Do not pierce or burn, even after use.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Storage:

##### Requirements to be met by storerooms and receptacles:

Store in a cool location.  
Store only in the original receptacle.  
Observe official regulations on storing packagings with pressurised containers.

##### Information about storage in one common storage facility: Store away from oxidising agents.

##### Further information about storage conditions:

Keep container tightly sealed.  
Do not seal receptacle gas tight.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.

##### Storage class: 2 B

#### 7.3 Specific end use(s) No further relevant information available.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Ingredients with limit values that require monitoring at the workplace:

##### 106-97-8 butane, pure

|     |   |
|-----|---|
| WEL | Short-term value: 1810 mg/m <sup>3</sup> , 750 ppm<br>Long-term value: 1450 mg/m <sup>3</sup> , 600 ppm<br>Carc (if more than 0.1% of buta-1.3-diene) |
|-----|---|

##### 67-64-1 acetone

|     |  |
|-----|--|
| WEL | Short-term value: 3620 mg/m <sup>3</sup> , 1500 ppm<br>Long-term value: 1210 mg/m <sup>3</sup> , 500 ppm |
|-----|--|

**Additional information:** The lists valid during the making were used as basis.

#### 8.2 Exposure controls

##### Appropriate engineering controls No further data; see item 7.

##### Individual protection measures, such as personal protective equipment

##### General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.

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· **Respiratory protection:**

Not necessary if room is well-ventilated.

Use suitable respiratory protective device in case of insufficient ventilation.

· **Hand protection**



Protective gloves

Impervious gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Nitrile rubber, NBR

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Not suitable are gloves made of the following materials:** PVC gloves

· **Eye/face protection**

Safety glasses



Tightly sealed goggles

· **Body protection:** Protective work clothing

## \* SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Physical state**

Aerosol

· **Colour:**

Light yellow

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

Undetermined.

· **Boiling point or initial boiling point and boiling range**

-44.5 °C (74-98-6 propane)

· **Flammability**

Not applicable.

· **Lower and upper explosion limit**

· **Lower:**

1.5 Vol %

· **Upper:**

10.9 Vol %

· **Flash point:**

-60 °C

· **Auto-ignition temperature:**

Product is not selfigniting.

· **Decomposition temperature:**

Not determined.

· **pH**

Not determined.

· **Viscosity:**

· **Kinematic viscosity**

Not determined.

· **Dynamic:**

Not determined.

· **Solubility**

· **water:**

Not miscible or difficult to mix.

· **Partition coefficient n-octanol/water (log value)**

Not determined.

· **Vapour pressure at 20 °C:**

8,300 hPa

· **Density and/or relative density**

· **Density at 20 °C:**

0.63 g/cm<sup>3</sup>

· **Relative density**

Not determined.

· **Vapour density**

Not determined.

· **9.2 Other information**

· **Appearance:**

· **Form:**

Aerosol

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### · Important information on protection of health and environment, and on safety.

- **Ignition temperature:** 365 °C
- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

### · Solvent content:

- **Organic solvents:** 94.0 %
- **VOC (EC)** 99.00 %
- **Solids content:** 0.5 %

### · Change in condition

- **Evaporation rate** Not applicable.

### · Information with regard to physical hazard classes

- **Explosives** Void
- **Flammable gases** Void
- **Aerosols** Extremely flammable aerosol. Pressurised container: May burst if heated.
- **Oxidising gases** Void
- **Gases under pressure** Void
- **Flammable liquids** Void
- **Flammable solids** Void
- **Self-reactive substances and mixtures** Void
- **Pyrophoric liquids** Void
- **Pyrophoric solids** Void
- **Self-heating substances and mixtures** Void
- **Substances and mixtures, which emit flammable gases in contact with water** Void
- **Oxidising liquids** Void
- **Oxidising solids** Void
- **Organic peroxides** Void
- **Corrosive to metals** Void
- **Desensitised explosives** Void

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## \* SECTION 11: Toxicological information

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

#### · Acute toxicity

#### · LD/LC50 values relevant for classification:

106-97-8 butane, pure

Inhalative LC50/4 h 658 mg/l (rat)

#### · Skin corrosion/irritation

 Causes skin irritation.

#### · STOT-single exposure

 May cause drowsiness or dizziness.

#### · Aspiration hazard

 May be fatal if swallowed and enters airways.

### · 11.2 Information on other hazards

#### · Endocrine disrupting properties

None of the ingredients is listed.

## \* SECTION 12: Ecological information

### · 12.1 Toxicity

#### · Aquatic toxicity:

 No further relevant information available.

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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### \* SECTION 14: Transport information

- **14.1 UN number or ID number**
- **ADR, IMDG, IATA** UN1950
- **14.2 UN proper shipping name**
- **ADR** 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS
- **IMDG** AEROSOLS, MARINE POLLUTANT
- **IATA** AEROSOLS, flammable
- **14.3 Transport hazard class(es)**

· **ADR**

- **Class** 2 5F Gases.
- **Label** 2.1

· **IMDG**

- **Class** 2.1 Gases.
- **Label** 2.1

· **IATA**

- **Class** 2.1 Gases.
- **Label** 2.1

· **14.4 Packing group**· **ADR, IMDG, IATA** Void

- **14.5 Environmental hazards:** Product contains environmentally hazardous substances:  
Naphtha (petroleum), hydrotreated light

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|  |  |
|--|--|
| · Marine pollutant:  | Yes  |
| · Special marking (ADR):                                       | Symbol (fish and tree)                                     |
| · 14.6 Special precautions for user                            | Symbol (fish and tree)                                     |
| · Hazard identification number (Kemler code):                  | Warning: Gases.  |
| · EMS Number:  | -  |
| · Stowage Code   | F-D,S-U  |
|  | SW1 Protected from sources of heat.                        |
|  | SW22 For AEROSOLS with a maximum capacity of 1 litre:      |
|  | Category A. For AEROSOLS with a capacity above 1 litre:    |
|  | Category B. For WASTE AEROSOLS: Category C, Clear of       |
|  | living quarters.   |
| · Segregation Code   | SG69 For AEROSOLS with a maximum capacity of 1 litre:      |
|  | Segregation as for class 9. Stow "separated from" class 1  |
|  | except for division 1.4.                                   |
|  | For AEROSOLS with a capacity above 1 litre:                |
|  | Segregation as for the appropriate subdivision of class 2. |
|  | For WASTE AEROSOLS:  |
|  | Segregation as for the appropriate subdivision of class 2. |
| · 14.7 Maritime transport in bulk according to IMO instruments | Not applicable.  |
| · Transport/Additional information:                            |  |

|                            |                                    |
|----------------------------|------------------------------------|
| · ADR                      |                                    |
| · Limited quantities (LQ)  | 1L                                 |
| · Excepted quantities (EQ) | Code: E0                           |
|                            | Not permitted as Excepted Quantity |
| · Transport category       | 2                                  |
| · Tunnel restriction code  | D                                  |

|                            |  |
|----------------------------|--|
| · IMDG                     |  |
| · Limited quantities (LQ)  | 1L   |
| · Excepted quantities (EQ) | Code: E0   |
|                            | Not permitted as Excepted Quantity               |
| · UN "Model Regulation":   | UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS |

### \* SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**  
P3a FLAMMABLE AEROSOLS  
E2 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**  
H220 Extremely flammable gas.  
H225 Highly flammable liquid and vapour.  
H280 Contains gas under pressure; may explode if heated.  
H301 Toxic if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H311 Toxic in contact with skin.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H336 May cause drowsiness or dizziness.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

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EUH066 Repeated exposure may cause skin dryness or cracking.

**Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases – Category 1

Aerosol 1: Aerosols – Category 1

Press. Gas (Comp.): Gases under pressure – Compressed gas

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

\* **Data compared to the previous version altered.**