

**SHINE-X**

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

**1.1. Product identifier**

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

**Use of the substance/mixture**

No information available.

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

Company name: TECHNIQUA HANDELS GmbH  
Street: Reichenhaller Straße 15  
Place: D-83451 Piding  
Tel: +49 (8651) - 767 62 51  
E-Mail: sales@techniqua.de

**1.4. Emergency telephone number:**

Poison information center  
Tel: +49 (0) 6131 - 19240, Langenbeckstraße 1, D- 55131 Mainz

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Regulation (EC) No. 1272/2008**

Hazard categories:

Aerosol: Aerosol 1

Hazard Statements:

Extremely flammable aerosol.

Pressurised container: May burst if heated.

**2.2. Label elements**

**Regulation (EC) No. 1272/2008**

**Signal word:** Danger

**Pictograms:**



**Hazard statements**

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

**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.

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**

No information available.

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

**3.2. Mixtures**

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### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
75-28-5	isobutane			25 - < 50 %
	200-857-2	601-004-00-0	01-2119485395-27	
	Flam. Gas 1, Liquefied gas; H220 H280			
74-98-6	propane			5 - < 10 %
	200-827-9	601-003-00-5	01-2119486944-21	
	Flam. Gas 1, Liquefied gas; H220 H280			
106-97-8	butane			1 - < 3 %
	203-448-7	601-004-00-0	01-2119474691-32	
	Flam. Gas 1, Liquefied gas; H220 H280			

Full text of H and EUH statements: see section 16.

### Labelling for contents according to Regulation (EC) No 648/2004

>= 30 % aliphatic hydrocarbons.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air. Remove person to fresh air and keep comfortable for breathing.

#### After contact with skin

Wash with plenty of water.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

#### After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Call a physician in any case!

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

Headache, nausea, dizziness, fatigue, skin irritation

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

Treat symptomatically. Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder. Water fog.

#### Unsuitable extinguishing media

High power water jet. High power water jet.

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

Flammable. Vapours can form explosive mixtures with air.

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes. Move undamaged containers from immediate hazard area if it can be done safely. In case of fire: Wear

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self-contained breathing apparatus.

### Additional information

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

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

Remove all sources of ignition. Provide adequate ventilation. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Wear personal protection equipment. Remove all sources of ignition.

### 6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Ensure all waste water is collected and treated via a waste water treatment plant.

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean contaminated articles and floor according to the environmental legislation.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13 See section 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Do not pierce or burn, even after use. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. Dust must be exhausted directly at the point of origin. When using do not eat, drink, smoke, sniff.

#### Advice on protection against fire and explosion

Do not spray on naked flames or any incandescent material. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Keep away from sources of ignition - No smoking. Vapours can form explosive mixtures with air. No special measures are necessary.

#### Further information on handling

Avoid contact with skin and eyes.

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

#### Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### Advice on storage compatibility

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances. No special measures are necessary.

#### Further information on storage conditions

Protect from frost. Protect against direct sunlight.

### 7.3. Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL

#### Additional advice on limit values

- a no restriction
- b End of exposure or shift
- c in long-term exposure: after several shifts
- d prior to next shift

STEL (EC) : Short Term Exposure Limit

TWA (EC): time-weighted average

U: Urea

B: Blood

### 8.2. Exposure controls

#### Protective and hygiene measures

Wash hands before breaks and after work. When using do not eat or drink. Wear suitable protective clothing.

#### Eye/face protection

Wear eye protection/face protection.

#### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Suitable material: NBR (Nitrile rubber) Breakthrough time (maximum wearing time) 480min

Thickness of the glove material 0,45 mm

DIN EN 374

#### Skin protection

Wear suitable protective clothing.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection. No special measures are necessary. In case of inadequate ventilation wear respiratory protection.

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Suitable respiratory protection apparatus: Combination filtering device (EN 14387)

#### Environmental exposure controls

Observe legal regulations and provisions.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Aerosol
Colour:	colourless
Odour:	characteristic

Test method

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pH-Value (at 20 °C): not applicable DIN 19268

### Changes in the physical state

Melting point: No information available.

Initial boiling point and boiling range: -40 °C

Sublimation point: No information available.

Softening point: No information available.

Flash point: -80 °C

### Flammability

Solid: not applicable

Gas: not applicable

Lower explosion limits: No information available.

Upper explosion limits: No information available.

Ignition temperature: No information available.

### Auto-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

### Oxidizing properties

Not oxidising.

Vapour pressure: No information available.

Vapour pressure: No information available.

Density (at 20 °C): 0,862 g/cm<sup>3</sup> DIN 51757

Bulk density: not applicable

Water solubility: The study does not need to be conducted because the substance is known to be insoluble in water

### Solubility in other solvents

not determined

Partition coefficient: No information available.

Viscosity / dynamic: No information available.

Viscosity / kinematic: 70 mm<sup>2</sup>/s

Flow time: No information available.

Vapour density: No information available.

Evaporation rate: No information available.

Solvent separation test: No information available.

Solvent content: No information available.

### 9.2. Other information

Solid content: No information available.

Relative density Data apply to the technically active substance.  
pressure - bar (20°C)

## SECTION 10: Stability and reactivity

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### **10.1. Reactivity**

Flammable, Ignition hazard. Reacts with : Oxidizing agents.

### **10.2. Chemical stability**

The product is stable under normal conditions.

### **10.3. Possibility of hazardous reactions**

No information available.

### **10.4. Conditions to avoid**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air. No special precautionary measures are necessary. Do not mix with other chemicals.

### **10.5. Incompatible materials**

No information available.

### **10.6. Hazardous decomposition products**

No information available.

### **Further information**

Do not mix with other chemicals.

## **SECTION 11: Toxicological information**

### **11.1. Information on toxicological effects**

#### **Toxicokinetics, metabolism and distribution**

No information available.

#### **Acute toxicity**

Based on available data, the classification criteria are not met.

CAS No	Chemical name			
	Exposure route	Dose	Species	Source
106-97-8	butane			
	inhalative (4 h) gas	LC50 658 ppm	Rat	GESTIS

#### **Irritation and corrosivity**

Based on available data, the classification criteria are not met.

#### **Sensitising effects**

Based on available data, the classification criteria are not met.

#### **Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

No indications of human carcinogenicity exist.

No indications of human germ cell mutagenicity exist.

No indications of human reproductive toxicity exist.

#### **STOT-single exposure**

Based on available data, the classification criteria are not met.

#### **STOT-repeated exposure**

Based on available data, the classification criteria are not met.

#### **Aspiration hazard**

Based on available data, the classification criteria are not met.

#### **Specific effects in experiment on an animal**

No information available.

#### **Additional information on tests**

The mixture is classified as hazardous according to Directive 1999/45/EC.

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### SECTION 12: Ecological information

#### **12.1. Toxicity**

The product is not: Ecotoxic.

#### **12.2. Persistence and degradability**

There are no data available on the mixture itself. AOX (mg/l): 0

#### **12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

#### **Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
75-28-5	isobutane	2,8
74-98-6	propane	2,36
106-97-8	butane	2,89

#### **12.4. Mobility in soil**

No information available.

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

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

#### **12.6. Other adverse effects**

No information available.

#### **Further information**

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

##### **Advice on disposal**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

##### **Waste disposal number of waste from residues/unused products**

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

##### **Waste disposal number of used product**

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

##### **Waste disposal number of contaminated packaging**

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

##### **Contaminated packaging**

Completely emptied packages can be recycled.

### SECTION 14: Transport information

#### **Land transport (ADR/RID)**

- 14.1. UN number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2

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### 14.4. Packing group:

Hazard label: 2.1  
Classification code: 5F  
Special Provisions: 190 327 344 625  
Limited quantity: 1 L  
Excepted quantity: E0  
Transport category: 2  
Tunnel restriction code: D

### Inland waterways transport (ADN)

14.1. UN number: UN 1950

14.2. UN proper shipping name: AEROSOLS

14.3. Transport hazard class(es): 2

### 14.4. Packing group:

Hazard label: 2.1  
Classification code: 5F  
Special Provisions: 190 327 344 625  
Limited quantity: 1 L  
Excepted quantity: E0

### Marine transport (IMDG)

14.1. UN number: UN 1950

14.2. UN proper shipping name: AEROSOLS

14.3. Transport hazard class(es): 2.1

### 14.4. Packing group:

Hazard label: 2.1  
Marine pollutant: no  
Special Provisions: 63, 190, 277, 327, 344, 959  
Limited quantity: 1000 mL  
Excepted quantity: E0  
EmS: F-D, S-U

### Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1950

14.2. UN proper shipping name: AEROSOLS, flammable

14.3. Transport hazard class(es): 2.1

### 14.4. Packing group:

Hazard label: 2.1  
Special Provisions: A145 A167 A802  
Limited quantity Passenger: 30 kg G  
Passenger LQ: Y203  
Excepted quantity: E0  
IATA-packing instructions - Passenger: 203  
IATA-max. quantity - Passenger: 75 kg  
IATA-packing instructions - Cargo: 203  
IATA-max. quantity - Cargo: 150 kg

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

### 14.6. Special precautions for user

Warning: Flammable gases.



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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

#### EU regulatory information

2010/75/EU (VOC): No information available.

2004/42/EC (VOC): No information available.

#### Additional information

To follow: 850/2004/EC , 79/117/EEC , 689/2008/EC , 2008/47/EC

#### National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water contaminating class (D): 1 - slightly water contaminating

#### Additional information

94/69/EC (21st ATP). The benzene content of the product is less than 0.1%. It applies the annotation P.  
Classification and labeling as carcinogenic is not necessary.

## SECTION 16: Other information

### Changes

This data sheet contains changes from the previous version in section(s): 3,11,14.

### Abbreviations and acronyms

ADR: Accord européen sur le transport 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 Harmonized 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

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

### Relevant H and EUH statements (number and full text)

H220 Extremely flammable gas.

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H280 Contains gas under pressure; may explode if heated.

### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*