

# Material Safety Data Sheet

## Sasfroth 2030

Version .00

Revision Date 18.01.2007



### 1. Identification of the substance/preparation and of the company/undertaking

Trade name	Sasfroth 2030
Synonyms	Sasfroth 2030
Company	Hitech Chemicals

### 2. Composition/information on ingredients

#### Preparation on the base:

**2-butoxyethanol; ethylene glycol monobutyl ether butyl cellosolve**

content:  $\geq 20.00$  -  $\leq 40.00$  %W/W

CAS-No. 111-76-2

Index-No. 603-014-00-0

EC-No. 203-905-0

Symbol(s) Xn

R-phrase(s) -R20/21/22 -R36/38

**pentanol isomers, with the exception of those specified elsewhere in this Annex**

content:  $\geq 2.00$  -  $\leq 30.00$  %W/W

CAS-No. 71-41-0

Index-No. 603-006-00-7

EC-No. 200-752-1

Symbol(s) Xn

R-phrase(s) -R10 -R20 -R37 -R66

**2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether; butoxytriethylene glycol**

content:  $\geq 3.00$  -  $\leq 20.00$  %W/W

CAS-No. 143-22-6

Index-No. 603-183-00-0

EC-No. 205-592-6

Symbol(s) Xi

R-phrase(s) -R41

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**pentanol isomers, with the exception of those specified elsewhere in this Annex**

content: 12.60 %W/W

**CAS-No.** 6032-29-7

**Index-No.** 603-006-00-7

**EC-No.** 227-907-6

**Symbol(s)** Xn

**R-phrase(s)** -R10 -R20 -R37 -R66

**butan-1-ol; n-butanol**

content: 3.00 %W/W

**CAS-No.** 71-36-3

**Index-No.** 603-004-00-6

**EC-No.** 200-751-6

**Symbol(s)** Xi

**R-phrase(s)** -R10 -R22 -R37/38 -R41 -R67

**4-methylpentan-2-ol; methyl isobutyl carbinol**

content: 2.00 %W/W

**CAS-No.** 108-11-2

**Index-No.** 603-008-00-8

**EC-No.** 203-551-7

**Symbol(s)** Xi

**R-phrase(s)** -R10 -R37

For the full text of the R phrases mentioned in this Section, see Section 16.

### 3. Hazards identification

#### Identification of the risks

R10

Flammable.

R20/21/22

Harmful by inhalation, in contact with skin and if swallowed.

R36/37/38

Irritating to eyes, respiratory system and skin.

### 4. First aid measures

#### General advice

If you feel unwell, seek medical advice (show the label where possible).

#### Inhalation

Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

#### Skin contact

Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately.

#### Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Call a physician immediately.

#### Ingestion

If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious

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person.

### 5. Fire-fighting measures

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<b>Suitable extinguishing media</b>	Water spray, Dry powder, Foam
<b>Specific hazards during fire fighting</b>	Flash back possible over considerable distance. Do not allow run-off from fire fighting to enter drains or water courses.
<b>Special protective equipment for fire-fighters</b>	Wear self-contained breathing apparatus and protective suit.
<b>Further information</b>	Standard procedure for chemical fires. In the event of fire, cool tanks with water spray.

### 6. Accidental release measures

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<b>Personal precautions</b>	Use personal protective equipment. Do not breathe vapours or spray mist. Ensure adequate ventilation. Keep away from sources of ignition - No smoking.
<b>Environmental precautions</b>	Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). The material taken up must be disposed of in accordance with regulations.

### 7. Handling and storage

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#### Handling

<b>Safe handling advice</b>	Wear personal protective equipment. Avoid contact with skin and eyes. Keep away from sources of ignition - No smoking.
<b>Advice on protection against fire and explosion</b>	Use explosion-proof equipment. Provide sufficient air exchange and/or exhaust in work rooms. Keep away from open flames, hot surfaces and sources of ignition.

#### Storage

<b>Requirements for storage areas and containers</b>	Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition - No smoking.
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### 8. Exposure controls / personal protection

Components with workplace control parameters

**NATIONAL OCCUPATIONAL EXPOSURE LIMITS**

**EUROPEAN OCCUPATIONAL EXPOSURE LIMITS**

Components	Type	Control parameters	Update	Basis
2-BUTOXYETHANOL	TWA	98 mg/m <sup>3</sup>	05 2003	EU Exposure Limit Values
	TWA	20 ppm	05 2003	EU Exposure Limit Values
	STEL	246 mg/m <sup>3</sup>	05 2003	EU Exposure Limit Values
	STEL	50 ppm	05 2003	EU Exposure Limit Values

#### Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.

#### Personal protective equipment

**Respiratory protection**      Respirator with a vapour filter (EN 141)

**Hand protection**              gloves suitable for permanent contact:  
Material: butyl-rubber  
Break through time: 4 h  
Material thickness: 0.5 mm  
unsuitable gloves  
Material: Polyvinylchloride, leather, nitrile rubber/nitrile latex,  
natural rubber/natural latex

**Eye protection**                Safety glasses with side-shields

**Skin and body protection**    protective suit, Safety shoes

**Hygiene measures**            Wash hands before breaks and immediately after handling the product.

**Protective measures**         Wear suitable protective equipment.

### 9. Physical and chemical properties

<b>Form</b>	liquid
<b>state of matter</b>	liquid; at 1,013 hPa
<b>Colour</b>	red
<b>Odour</b>	pungent
<b>Melting point/range</b>	< -20 °C
<b>Boiling point/range</b>	137 °C

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<b>Flash point</b>	48 °C; closed cup
<b>Density</b>	0.873 g/cm <sup>3</sup> ; 20 °C
<b>Bulk density</b>	0.873 kg/m <sup>3</sup>
<b>Water solubility</b>	partly soluble
<b>Solubility in other solvents</b>	Medium: Alcohol; soluble
<b>Viscosity, dynamic</b>	4.23 mPa.s; 40 °C

#### 10. Stability and reactivity

<b>Materials to avoid</b>	Oxidizing agents, Reducing agents, Acids and bases
<b>Hazardous decomposition products</b>	No decomposition if stored normally.

#### 11. Toxicological information

<b>Acute oral toxicity</b>	Butyl glycol ether: LD50 rat: 470 mg/kg; literature value  Butyl glycol ether: LD50 rabbit: 300 mg/kg; literature value  n-Pentanol: LD50 rat: 370 mg/kg; literature value  n-Pentanol: LD50 mouse: 200 mg/kg; literature value
<b>Acute inhalation toxicity</b>	Butyl glycol ether: LC50 rat: 450 mg/l; literature value; 4 h  Butyl glycol ether: LCLo rat: 18,000 mg/m <sup>3</sup> ; literature value; 7 h  n-Pentanol: LCLo rat: 14,000 mg/m <sup>3</sup> ; literature value; 6 h
<b>Acute dermal toxicity</b>	Butyl glycol ether: LD50 rabbit: 220 mg/kg; literature value  n-Pentanol: LDLo rabbit: 4,490 mg/kg; literature value
<b>Eye irritation</b>	n-Pentanol: rabbit: highly irritating; literature value
<b>Assessment of mutagenicity</b>	n-Pentanol: Experiments showed mutagenic effects in cultured bacterial cells.

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### 12. Ecological information

#### Ecotoxicity effects

##### Toxicity to fish

Butyl glycol ether:  
LC50 *Poecilia reticulata*: 983 mg/l; 7 d; literature value

Butyl glycol ether:  
LC50 Bluegill sunfish: 1,490 mg/l; 96 h; literature value

Butyl glycol ether:  
LC50 *Pimephales promelas*: 2,137 mg/l; 96 h; literature value

Butyl glycol ether:  
*Oncorhynchus mykiss* (rainbow trout): > 1,000 mg/l; 96 h;  
literature value

##### Toxicity to daphnia and other aquatic invertebrates.

Butyl glycol ether:  
*Daphnia magna*: 1,720 mg/l; 24 h; literature value

### 13. Disposal considerations

**Product** In accordance with local and national regulations.

**Contaminated packaging** Packaging that cannot be cleaned must be disposed of in the same way as the material itself.

### 14. Transport information

**ADR** UN-No.: 1993; Class: 3; Packaging group: III; F1; Description of the goods: FLAMMABLE LIQUID, N.O.S. (pentanols, Butyl Glycol Ether)

**RID** UN-No.: 1993; Class: 3; Packaging group: III; F1; Description of the goods: FLAMMABLE LIQUID, N.O.S. (pentanols, Butyl Glycol Ether)

**IMDG** UN-No.: 1993; Class: 3; EmS: F-E, S-E; Packaging group: III; Description of the goods: FLAMMABLE LIQUID, N.O.S. (pentanols, Butyl Glycol Ether)

**ICAO/IATA** UN-No. : 1993; Class: 3; Packaging group: III; Description of the goods: Flammable liquid, n.o.s. (pentanols, Butyl Glycol Ether)

### 15. Regulatory information



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<b>Regulatory base</b>	1999/45/EC
<b>Symbol(s)</b>	Xn: Harmful
<b>R-phrase(s)</b>	R10: Flammable. R20/21/22: Harmful by inhalation, in contact with skin and if swallowed. R36/37/38: Irritating to eyes, respiratory system and skin.
<b>S-phrase(s)</b>	S 3/7: Keep container tightly closed in a cool place. S16: Keep away from sources of ignition - No smoking. S23: Do not breathe vapour. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37: Wear suitable protective clothing and gloves. S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S60: This material and its container must be disposed of as hazardous waste.
<b>Hazardous components which must be listed on the label</b>	2-butoxyethanol; ethylene glycol monobutyl ether butyl cellosolve  pentanol isomers, with the exception of those specified elsewhere in this Annex  pentanol isomers, with the exception of those specified elsewhere in this Annex

### 16. Other information

#### Full text of R-phrases referred to under sections 2 and 3

R10	Flammable.
R20	Harmful by inhalation.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R36/38	Irritating to eyes and skin.
R37	Irritating to respiratory system.
R37/38	Irritating to respiratory system and skin.
R41	Risk of serious damage to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

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All reasonable efforts were exercised to compile this MSDS in accordance with ISO 11014 and ANSIZ400.1.1993. The MSDS provides information regarding the health, safety and environmental hazards, at the date of issue, to facilitate the safe receipt, use and handling of the product in the workplace. Since we cannot anticipate or control all conditions under which the product may be handled, used and received in the workplace, it remains the obligation of each user, receiver or handler to, prior to usage, review this MSDS in the context within which the product will be received, handled or used in the workplace. The user, handler or receiver must ensure that the necessary mitigating measures are in place as regards health and safety. This does not substitute the need or requirement for any relevant risk assessments to be conducted. It further remains the responsibility of the receiver, handler or user to communicate such information to all relevant parties that may be involved in the receipt, use or handling of the product.

Although all reasonable efforts were exercised in the compilation of this MSDS, we do not expressly warrant the accuracy or assume any liability for the incompleteness of the information contained herein or any advice given. The product is sold and risk passes in accordance with the specific terms and conditions of sale. All reasonable efforts were exercised to compile this MSDS in accordance with ISO 11014 and ANSIZ400.1.1993. The MSDS provides information regarding the health, safety and environmental hazards, at the date of issue, to facilitate the safe receipt, use and handling of the product in the workplace. Since we cannot anticipate or control all conditions under which the product may be handled, used and received in the workplace, it remains the obligation of each user, receiver or handler to, prior to usage, review this MSDS in the context within which the product will be received, handled or used in the workplace. The user, handler or receiver must ensure that the necessary mitigating measures are in place as regards health and safety. This does not substitute the need or requirement for any relevant risk assessments to be conducted. It further remains the responsibility of the receiver, handler or user to communicate such information to all relevant parties that may be involved in the receipt, use or handling of the product.

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