

Material Safety Data Sheet

Sasfroth 2040

Version 1.04

Revision Date 27.06.2006



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

Trade name	Sasfroth 2040
Synonyms	Sasfroth 2040
Company	Hitech Chemicals

2. Composition/information on ingredients

Preparation on the base:

ethanol; ethyl alcohol

content: ≥ 23.00 - ≤ 28.00 %W/W

CAS-No. 64-17-5
Symbol(s) F

Index-No. 603-002-00-5
R-phrase(s) -R11

EG-Nr.: 200-578-6

hexan-1-ol

content: ≥ 19.00 - ≤ 22.00 %W/W

CAS-No. 111-27-3
Symbol(s) Xn

Index-No. 603-059-00-6
R-phrase(s) -R22

EG-Nr.: 203-852-3

2-butoxyethanol; ethylene glycol monobutyl ether butyl cellosolve

content: ≥ 8.00 - ≤ 12.00 %W/W

CAS-No. 111-76-2
Symbol(s) Xn

Index-No. 603-014-00-0
R-phrase(s) -R20/21/22 -R36/38

EG-Nr.: 203-905-0

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pentanol isomers, with the exception of those specified elsewhere in this Annex
content: >= 5.00 - <= 7.00 %W/W

CAS-No. 71-41-0
Symbol(s) Xn

Index-No. 603-006-00-7
R-phrases(s) -R10 -R20 -R37 -R66

EG-Nr.: 200-752-1

crotonaldehyde; 2-butenal

content: >= 0.20 - <= 2.00 %W/W

CAS-No. 4170-30-3
Symbol(s) F, T+, N

Index-No. 605-009-00-9
R-phrases(s) -R11 -R24/25 -R26 -R37/38 -R41 -R48/22 -R50
-R68

EG-Nr.: 224-030-0

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

3. Hazards identification

Identification of the risks

R10	Flammable.
R21/22	Harmful in contact with skin and if swallowed.
R23	Toxic by inhalation.
R36	Irritating to eyes.
R68	Possible risk of irreversible effects.

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. In case of shortness of breath, give oxygen. 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 person.

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Notes to physician

Risks First aider needs to protect himself.

5. Fire-fighting measures

Suitable extinguishing media Water spray, Alcohol-resistant foam, Dry chemical

Specific hazards during fire fighting Flash back possible over considerable distance. Do not allow run-off from fire fighting to enter drains or water courses.

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit.

Further information Standard procedure for chemical fires. In the event of fire, cool tanks with water spray.

6. Accidental release measures

Personal precautions Use personal protective equipment. Do not breathe vapours or spray mist. Ensure adequate ventilation. Keep away from sources of ignition - No smoking.

Environmental precautions Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up 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

Handling

Safe handling advice Wear personal protective equipment. Avoid contact with skin and eyes. Keep away from sources of ignition - No smoking.

Advice on protection against fire and explosion 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

Requirements for storage areas and containers 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 ³	05 2003	EU Exposure Limit Values
	TWA	20 ppm	05 2003	EU Exposure Limit Values
	STEL	246 mg/m ³	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 Suitable respiratory equipment:

Hand protection gloves suitable for permanent contact:

Material: butyl-rubber

Break through time: 4 h

Material thickness: 0.5 mm

unsuitable gloves

Material: leather, nitrile rubber/nitrile latex, Polyvinylchloride, 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

Form	liquid
state of matter	liquid; at 1,013 hPa
Colour	dark red
Odour	pungent
pH	neutral
Melting point/range	< -40 °C

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Boiling point/range	88 °C
Flash point	34 °C; closed cup
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Density	0.875 g/cm ³ ; 20 °C
Bulk density	0.875 kg/m ³ ; 20 °C
Water solubility	insoluble, immiscible
Partition coefficient (n-octanol/water)	no data available
Solubility in other solvents	Medium: Diethylether; completely soluble
Viscosity, kinematic	4.23 mm ² /s; 40 °C
Relative vapour density	6.3

10. Stability and reactivity

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

11. Toxicological information

Acute oral toxicity	Ethanol: LD50 rat: 7,060 mg/kg; literature value Hexanol: LD50 rat: 720 mg/kg; literature value Crotonaldehyde: LD50 rat: 80 mg/kg; literature value
Acute inhalation toxicity	Ethanol: LC50 rat: 66,000 mg/l; literature value; 4 h
Acute dermal toxicity	Ethanol: LDLo rabbit: 20,000 mg/kg; literature value Hexanol: LD50 rabbit: 3,100 mg/kg; literature value

12. Ecological information

Ecotoxicity effects

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Toxicity to fish

Ethanol:

LC50 *Pimephales promelas*: 15,300 mg/l; 96 h; literature value

Hexanol:

LC50 *Pimephales promelas*: 97.5 mg/l; 96 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.: 1992; Class: 3, (6.1); Packaging group: III; FT1;
Description of the goods: FLAMMABLE LIQUID, TOXIC, N.O.S.
(ethanol, crotonaldehyde)

RID

UN-No.: 1992; Class: 3, (6.1); Packaging group: III; FT1;
Description of the goods: FLAMMABLE LIQUID, TOXIC, N.O.S.
(ethanol, crotonaldehyde)

ADNR

UN-No.: 1992; Class: 3, (6.1); Packaging group: III; FT1;
Description of the goods: FLAMMABLE LIQUID, TOXIC, N.O.S.
(ethanol, crotonaldehyde)

IMDG

UN-No.: 1992; Class: 3, (6.1); EmS: F-E, S-D; Packaging
group: III; Description of the goods: FLAMMABLE LIQUID,
TOXIC, N.O.S.
(ethanol, crotonaldehyde)

ICAO/IATA

UN-No. : 1992; Class: 3, (6.1); Packaging group: III; Description
of the goods: Flammable liquid, toxic, n.o.s.
(ethanol, crotonaldehyde)

15. Regulatory information

Labelling



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Regulatory base	1999/45/EC
Symbol(s)	T: Toxic
R-phrase(s)	R10: Flammable. R21/22: Harmful in contact with skin and if swallowed. R23: Toxic by inhalation. R36: Irritating to eyes. R68: Possible risk of irreversible effects.
S-phrase(s)	S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S35: This material and its container must be disposed of in a safe way. S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S43: In case of fire, use sand, dry chemical or alcohol-resistant foam. S36/37/39: Wear suitable protective clothing, gloves and eye/face protection. S 7/9: Keep container tightly closed and in a well-ventilated place. S16: Keep away from sources of ignition - No smoking.
Hazardous components which must be listed on the label	hexan-1-ol 2-butoxyethanol; ethylene glycol monobutyl ether butyl cellosolve crotonaldehyde; 2-butenal

16. Other information

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



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R10	Flammable.
R11	Highly flammable.
R20	Harmful by inhalation.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R21/22	Harmful in contact with skin and if swallowed.
R22	Harmful if swallowed.
R23	Toxic by inhalation.
R24/25	Toxic in contact with skin and if swallowed.
R26	Very toxic by inhalation.
R36	Irritating to eyes.
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.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50	Very toxic to aquatic organisms.
R66	Repeated exposure may cause skin dryness or cracking.
R68	Possible risk of irreversible effects.

This MSDS summarises at the date of issue our best knowledge of the health, safety and environmental hazard information related to the product, and in particular how to safely handle, use, store and transport the product in the workplace. Since we cannot anticipate or control conditions under which the product may be handled, used, stored or transported, each user must, prior to usage, review this MSDS in the context of how the user intends to handle, use, store or transport the product in the workplace and beyond, and communicate such information to all relevant parties. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

We shall not assume any liability for the accuracy or completeness of the information contained herein or any advice given unless there has been gross negligence on our part. In such event our liability shall be limited only to direct damages suffered. Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request. All risk associated with the possession and application of the product passes on delivery.

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The MSDS was created by:

The MSDS was approved by:

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