

\* FREEFIX® 6470-W-2

Date revised: 26.01.2023

# 69564700250

Version: 7 / GB

Master No. M-401

Print date: 02.06.2023

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

### **1.1. Product identifier**

**Trade name**

FREEFIX® 6470-W-2

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

**Use of the substance/mixture**

Purpose of use: Raw substance formulas for manufacturing shaped parts from unsaturated polyester / vinyl ester resins.

**Uses advised against**

SU21 Consumer uses: Private households (= general public = consumers)

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

**Address**

BÜFA Composites UK Ltd. / BÜFA House  
Factory Lane  
CO11 1NH Brantham, Manningtree  
Telephone no. +44 77 75 90 17 75  
Information provided Department product safety / +49 4402 975-415  
by / telephone  
E-Mail produktsicherheit-compositesystems@buefa.de

### **1.4. Emergency telephone number**

Giftzentrale Goettingen: +49 551 19240

## **SECTION 2: Hazards identification \*\*\***

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

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

Flam. Liq. 3	H226	
Skin Irrit. 2	H315	
Eye Irrit. 2	H319	
Repr. 2	H361d	
STOT RE 1	H372	Organs: Ear; Route of exposure: inhalative

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008  
For explanation of abbreviations see section 16.

### **Labelling according to regulation (EC) No 1272/2008**

**Labelling according to regulation (EC) No 1272/2008****Hazard pictograms****Signal word**

Danger

**Hazard statements**

H226	Flammable liquid and vapour.
H315	Causes skin irritation.

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H319 Causes serious eye irritation.  
 H361d Suspected of damaging the unborn child.  
 H372 Causes damage to organs through prolonged or repeated exposure.  
 Ear; Route of exposure: inhalative

**Precautionary statements**

P201 Obtain special instructions before use.  
 P210.9 Keep away from sparks, open flames and other ignition sources. No smoking.  
 P260.8 Do not breathe vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308+P313 IF exposed or concerned: Get medical advice/ attention.

**Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

contains styrene

**2.3. Other hazards**

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The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Hazardous ingredients****styrene**

CAS No.	100-42-5				
EINECS no.	202-851-5				
Registration no.	01-2119457861-32-XXXX				
Concentration	>= 10	<	20	%	
Flam. Liq. 3	H226				
Skin Irrit. 2	H315				
Acute Tox. 4	H332				
Eye Irrit. 2	H319				
STOT SE 3	H335				
STOT RE 1	H372	Organs:	Ear;	Route of exposure:	inhalative
Asp. Tox. 1	H304				
Repr. 2	H361d				
Aquatic Chronic 3	H412				

cATpE	inhalative, Dust/Mist	1,5	mg/l
ATE	inhalative, Vapors	11,8	mg/l

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note D

Complete text of hazard statements in chapter 16

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Adhere to personal protective measures when giving first aid. Remove soiled or soaked clothing immediately, do not allow to dry. If the patient is likely to become unconscious, place and transport in stable sideways position.

**After inhalation**

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Remove the casualty into fresh air and keep him calm. Irregular breathing/no breathing: artificial respiration. In the event of symptoms take medical treatment.

**After skin contact**

Wash off immediately with soap and water.

**After eye contact**

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Seek medical advice immediately. Remove contact lenses

**After ingestion**

Rinse mouth thoroughly with water. Summon a doctor immediately. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. If individual is drowsy or unconscious place in recovery position (on left side, with head down).

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

The following symptoms may occur: Headache, Dizziness, Nausea, Dizziness

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

Treat symptomatically

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

Alcohol-resistant foam, Dry powder, Carbon dioxide

**Non suitable extinguishing media**

Full water jet

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

In case of combustion evolution of dangerous gases possible. In the event of fire the following can be released: Carbon monoxide (CO); Nitrogen oxides (NOx); dense black smoke

**5.3. Advice for firefighters**

Use self-contained breathing apparatus.

Cool endangered containers with water spray jet. Collect contaminated fire-fighting water separately, must not be discharged into the drains.

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

Avoid contact with skin, eyes and clothing. Use personal protective clothing. Keep away sources of ignition. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol.

**6.2. Environmental precautions**

Do not allow to enter drains or waterways. Do not discharge into the subsoil/soil. Prevent spread over a wide area (e.g. by containment or oil barriers).

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

Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder, sawdust). When picked up, treat material as prescribed under Section 13 "Disposal".

**6.4. Reference to other sections**

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

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

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid formation of

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aerosols. Observe the usual precautions for handling chemicals.

Keep away from sources of ignition - No smoking. Take action to prevent static discharges. Vapours can form an explosive mixture with air.

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

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight.

## 7.3. Specific end use(s)

No information available

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

### Exposure limit values

#### styrene

List	EH40			
Type	WEL			
Value	430	mg/m <sup>3</sup>	100	ppm(V)
Short term exposure limit	1080	mg/m <sup>3</sup>	250	ppm(V)

### Derived No/Minimal Effect Levels (DNEL/DMEL)

#### styrene

DNEL				
Conditions	Worker	Acute	inhalative	Systemic effects
Concentration	289	mg/m <sup>3</sup>		
DNEL				
Conditions	Worker	Long term	inhalative	Systemic effects
Concentration	85	mg/m <sup>3</sup>		
DNEL				
Conditions	Worker	Acute	inhalative	Local effects
Concentration	306	mg/m <sup>3</sup>		
DNEL				
Conditions	Worker	Long term	dermal	Systemic effects
Concentration	406	mg/kg/d		

## 8.2. Exposure controls

### Appropriate engineering controls

Use only in well ventilated areas.

Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

### General protective and hygiene measures

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid contact with skin and eyes. Do not inhale gases/vapours/aerosols. Personal protective equipment must comply with the Regulation (EC) No 2016/425 and the resulting CEN standards.

### Respiratory protection

If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Short term: filter apparatus, Filter A; Self-contained breathing apparatus. Respiratory protection must comply with DIN EN 136 / DIN EN 140 / DIN EN 143 / DIN EN 149.

### Hand protection

Chemical resistant gloves

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Appropriate Material Butyl rubber  
 Material thickness 0,7 mm  
 Breakthrough time = 30 min  
 Hand protection must comply with EN 374.

**Eye protection**

Tightly fitting safety glasses; Eye protection must comply with EN 166.

**Body protection**

Clothing as usual in the chemical industry. Wear protective clothing according to EN 13034: 2005 + A1: 2009.

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

**Form** Pasty  
**Colour** beige  
**Odour** of styrene  
**Melting point**  
 Remarks Not applicable  
**Freezing point**  
 Remarks Not applicable  
**Boiling point**  
 Value 145 °C  
 Remarks Information refers to the main component.  
**Flammability**  
 No data available  
**Explosion limits**  
 Lower explosion limit 1,1 to 6,1 %(V)  
 Remarks Information refers to the main component.  
**Flash point**  
 Value 38 °C  
 Method ISO 3679-B  
**Ignition temperature**  
 Value 490 °C  
 Remarks Information refers to the main component.  
**Thermal decomposition**  
 Remarks No data available  
**Self Accelerating Decomposition / Polymerization Temperature (SADT/SAPT)**  
 Remarks Not applicable  
**pH value**  
 Remarks Not applicable  
**Solubility in other solvents**  
 Value 320 mg/l  
 25 °C  
 Remarks Information refers to the main component.  
 Source Manufacturer's data  
**Octanol/water partition coefficient (log Pow)**  
 Remarks No data available  
**Vapour pressure**  
 Value 6,67 hPa  
 Temperature 20 °C

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Remarks Information refers to the main component.

**Density**

Value	1,65	g/cm <sup>3</sup>
Temperature	20 °C	
Method	DIN EN ISO 2811-1	

**Vapour density**

Remarks No data available

**Particle characteristics**

Remarks Not applicable

**9.2. Other information****Efflux time**

Value	> 61	s
Temperature	23 °C	
Method	DIN EN ISO 2431 - 6 mm	

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No hazardous reactions when stored and handled according to prescribed instructions.

**10.2. Chemical stability**

The product is stable.

**10.3. Possibility of hazardous reactions**

Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4. Conditions to avoid**

Protect from heat and direct sunlight.

**Thermal decomposition**

Remarks No data available

**10.5. Incompatible materials**

Reactions with peroxides and other radical components.

**10.6. Hazardous decomposition products**

No hazardous decomposition products known.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute oral toxicity**

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

**Acute oral toxicity (Components)****styrene**

Species	rat		
LD50	>	5000	mg/kg

**Acute dermal toxicity**

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

**Acute dermal toxicity (Components)****styrene**

Species	rat		
LD50	>	5000	mg/kg

**Acute inhalational toxicity**

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ATE	88,69	mg/l
Administration/Form	Vapors	
Method	calculated value (Regulation (EC) No. 1272/2008)	
ATE	11,27	mg/l
Administration/Form	Dust/Mist	
Method	calculated value (Regulation (EC) No. 1272/2008)	

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

**Acute inhalative toxicity (Components)****styrene**

Species	rat		
LC50	11,8		mg/l
Duration of exposure	4	h	
Administration/Form	Vapors		

**Skin corrosion/irritation**

evaluation irritant  
The classification criteria are met.

**Serious eye damage/irritation**

evaluation irritant  
The classification criteria are met.

**Sensitization**

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

**Mutagenicity**

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

**Reproductive toxicity**

evaluation Suspected of damaging the unborn child.  
The classification criteria are met.

**Carcinogenicity**

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

**Specific Target Organ Toxicity (STOT)****Single exposure**

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

**Repeated exposure**

The classification criteria are met.

evaluation Causes damage to organs through prolonged or repeated exposure

**Specific Target Organ Toxicity (STOT) (Components)****styrene****Repeated exposure**

evaluation Causes damage to organs through prolonged or repeated exposure  
Route of exposure inhalative  
Organs: Ear

**Aspiration hazard**

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

**11.2 Information on other hazards****Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

**Other information**

Inhalation of solvent vapours in higher concentration may lead to nausea, headache, drowsiness and dizziness.

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## **SECTION 12: Ecological information**

### **12.1. Toxicity**

#### **Fish toxicity**

##### **styrene**

LC/EC/IC50	>	1,0	to	10	mg/l
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#### **Daphnia toxicity**

##### **styrene**

Species	Daphnia magna
LC/EC/IC50	> 1,0 to 10 mg/l

#### **Algae toxicity**

##### **styrene**

LC/EC/IC50	>	1,0	to	10	mg/l
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#### **Bacteria toxicity**

No toxicological data are available.

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

For this subsection there is no ecotoxicological data available on the product as such.

#### **Biodegradability**

##### **styrene**

evaluation	Readily biodegradable (according to OECD criteria)
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### **12.3. Bioaccumulative potential**

For this subsection there is no ecotoxicological data available on the product as such.

#### **Octanol/water partition coefficient (log Pow)**

Remarks	No data available
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### **12.4. Mobility in soil**

For this subsection there is no ecotoxicological data available on the product as such.

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

#### **Evaluation of persistence and bioaccumulation potential**

The product contains no PBT substances  
The product contains no vPvB substances.

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

#### **Endocrine disrupting properties with respect to the environment**

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

### **12.7. Other adverse effects**

For this subsection there is no ecotoxicological data available on the product as such.

## **SECTION 13: Disposal considerations**

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

#### **Disposal recommendations for the product**

EWC waste code	07 02 08*	other still bottoms and reaction residues
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The listed waste code numbers, according to the European Waste Catalogue (EWC), are to be understood as a recommendation. A final decision must be made in agreement with the regional waste disposal company.

#### **Disposal recommendations for packaging**



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Packaging that cannot be cleaned should be disposed off as product waste.

**SECTION 14: Transport information \*\*\***

	Land transport ADR/RID ***	Marine transport IMDG/GGVSee
14.1. UN number	1866	1866
14.2. UN proper shipping name	RESIN SOLUTION	RESIN SOLUTION
14.3. Transport hazard class(es)	3	3
14.4. Packing group	III	III
Label		
14.5. Environmental hazards	-	
Limited Quantity		5 l
Limited Quantity	5 l	
Transport category	3	
Tunnel restriction code	D/E	
Hazard id. no.	30	
EmS		F-E, S-E
Remarks	Viscous product: Transport according to paragraph 2.2.3.1.5 ADR/RID	Transport according to 2.3.2.5 of the IMDG Code

**Information for all modes of transport****14.6. Special precautions for user**

Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Other information****14.7 Maritime transport in bulk according to IMO instruments**

Not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Major-accident categories acc. 2012/18/EU**

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Category P5c FLAMMABLE LIQUID

**VOC**

VOC (EU) 0,75 %

**Other information**

The product does not contain substances according to: Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH).

**15.2. Chemical safety assessment**

No information available

**SECTION 16: Other information****Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

Flam. Liq. 3	H226	On basis of test data
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Repr. 2	H361d	Calculation method
STOT RE 1	H372	Calculation method

**Hazard statements listed in Chapter 2/3**

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

**CLP categories listed in Chapter 2/3**

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 3	Flammable liquid, Category 3
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin irritation, Category 2
STOT RE 1	Specific target organ toxicity - repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

**Abbreviations**

ATE: Acute Toxicity Estimates  
 CAS: Chemical Abstracts Service  
 cATpE: Converted acute toxicity point estimate  
 EAK: Europäischer Abfallkatalog  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: Very persistent and very bioaccumulative  
 VOC: Volatile Organic Compound

**Supplemental information**

Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*  
 This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.