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SECTION 1: Identification of the substance/mixture and of the company/undertaking • 1.1 Product identifier

· Trade name: 4CR 2810 UP-Reparaturharz

• 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 Knife filler/ Surfacer

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
4CR Vertriebsgesellschaft mbH
Oberer Sommerfeldweg 2
94469 Deggendorf
Tel.: + 49 (0) 48 41-6650-15
Fax: + 49 (0) 48 41-6650-16
e-Mail: order@4cr.de

• 1.4 Emergency telephone number: +49(0)700 24112112 (CRM)

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture · Classification according to Regulation (EC) No 1272/2008

GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

GHS08 health hazard

Repr. 2 H361d Suspected of damaging the unborn child. *STOT RE* 1 H372 Causes damage to the hearing organs through prolonged or repeated exposure.

GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 *H319 Causes serious eye irritation.*

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Harmful

R20-48/20-63: Harmful by inhalation. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of harm to the unborn child.

Xi; Irritant

R36/38:

Irritating to eyes and skin.

R10: Flammable.

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

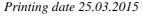
· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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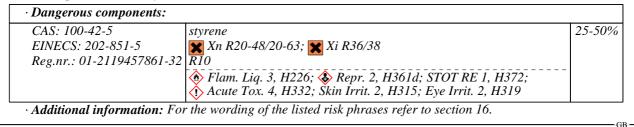
	(Contd. of page 1	
2.2 Label ele	ments	
Labelling ac	cording to Regulation (EC) No 1272/2008	
	is classified and labelled according to the CLP regulation.	
Hazard picto		
<u> </u>		
<u>< 8</u>) <		
	\vee \vee	
GHS02 C	SHS07 GHS08	
Signal word	Danger	
Hazard-dete	mining components of labelling:	
styrene		
Hazard state	ments	
H226 Flam	nable liquid and vapour.	
	es skin irritation.	
H319 Caus	es serious eye irritation.	
H361d Suspe	cted of damaging the unborn child.	
	es damage to the hearing organs through prolonged or repeated exposure.	
	ry statements	
P101	<i>If medical advice is needed, have product container or label at hand.</i>	
P102	Keep out of reach of children.	
P103	Read label before use.	
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.	
P241	Use explosion-proof electrical/ventilating/lighting/equipment.	
P303+P361-	P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse ski	
	with water/shower.	
P305+P351-	+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,	
	present and easy to do. Continue rinsing.	
P405	Store locked up.	
P501	Dispose of contents/container in accordance with local/regional/national/international	
	regulations.	
2.3 Other ha	zards	
D 1. (D)	3T and vPvB assessment	

• **vPvB**: Not applicable.

SECTION 3: Composition/information on ingredients

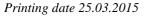
· 3.2 Chemical characterisation: Mixtures

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



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SECTION 4: First aid measures

• 4.1 Description of first aid measures

• General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

• After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

- In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. • *After swallowing: If symptoms persist consult doctor.*

- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- \cdot 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: CO2, 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: Mouth respiratory protective device.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

• 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. 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 Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
- Information about fire and explosion protection: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
- · 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

• Requirements to be met by storerooms and receptacles: No special requirements.

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- · Information about storage in one common storage facility: Store away from foodstuffs.
- Further information about storage conditions: Keep container tightly sealed.

· Storage class: 3

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

SECTION 8: Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

· 8.1 Control parameters

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

100-42-5 styrene

WEL Short-term value: 1080 mg/m³, 250 ppm Long-term value: 430 mg/m³, 100 ppm

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

· 8.2 Exposure controls

- · Personal protective equipment:
- · General protective and hygienic measures:
- Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

• **Respiratory protection:**



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



Protective gloves (EN 374)

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

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

· Eye protection:



Tightly sealed goggles

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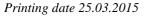
9.1 Information on basic physical of General Information	and chemical properties
Appearance:	
Form:	Fluid
Colour:	According to product specification
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	145 °C
Flash point:	33 °C (DIN 53213)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	480 °C (DIN 51794)
Decomposition temperature:	Not determined.
Self-igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapou mixtures are possible.
Explosion limits:	
Lower:	1.2 Vol %
Upper:	8.9 Vol %
Vapour pressure at 20 °C:	6 hPa
Density at 20 °C:	1.15 g/cm ³ (DIN 53217)
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/wa	ter): Not determined.
Viscosity:	
Dynamic at 20 °C:	900 mPas
Kinematic:	Not determined.
Solvent content:	
VOC (EC)	0.00 %
Solids content (weight-%):	70.5 %
9.2 Other information	No further relevant information available.

- SECTION 10: Stability and reactivity
- · 10.1 Reactivity
- · 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.

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· 10.6 Hazardous decomposition products: Carbon monoxide

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SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity:

100-42-5 styrene

		2	
Oral		LD50	5000 mg/kg (rat)
Derma			> 2000 mg/kg (rat)
Inhala	tive	LC50/4 h (Dämpfe)	11.8 mg/l (rat)

· Primary irritant effect:

- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.
- · Sensitisation: No sensitising effects known.
- · Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Harmful

- Irritant
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- Repr. 2

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 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.
- Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) : hazardous for water Do not allow product to reach ground water, water course or sewage system.

- Danger to drinking water if even small quantities leak into the ground.
- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- **vPvB:** Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

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.

\cdot European waste catalogue

08 01 11* waste paint and varnish containing organic solvents or other dangerous substances

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· Uncleaned packaging:

• *Recommendation: Disposal must be made according to official regulations.*

14.1 UN-Number	
ADR, IMDG, IATA	UN3269
14.2 UN proper shipping name	
ADR	3269 POLYESTER RESIN KIT
IMDG, IATA	POLYESTER RESIN KIT
14.3 Transport hazard class(es)	
ADR	
Class	3 (F3) Flammable liquids.
Label IMDG, IATA	3
Class Label	3 Flammable liquids. 3
	5
14.4 Packing group	111
ADR, IMDG, IATA	111
14.5 Environmental hazards: Marine pollutant:	No
-	
14.6 Special precautions for user Danger code (Kemler):	Warning: Flammable liquids.
EMS Number:	F-E,S-D
14.7 Transport in bulk according to Anne	ax II of
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
ADR	
Transport category	3
Tunnel restriction code	E
IMDG Limited quantities (LQ)	5L
UN ''Model Regulation'':	UN3269, POLYESTER RESIN KIT, 3, III

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

· National regulations:

Class | Share in % 25-50 NK

· 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

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H361d Suspected of damaging the unborn child.

H372 Causes damage to the hearing organs through prolonged or repeated exposure.

R10 Flammable.

R20 Harmful by inhalation.

R36/38 Irritating to eyes and skin.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R63 Possible risk of harm to the unborn child.

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO) 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 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

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

• * Data compared to the previous version altered.