according to 1907/2006/EC, Article 31

4cR

Revision: 07.09.2018

Printing date 09.09.2021

Version number 37

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

- · 1.1 Product identifier
- · Trade name: 4CR 4040 Rostversiegelung
- · 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 Sealing
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

4CR Vertriebsgesellschaft mbH Oberer Sommerfeldweg 2

D-94469 Deggendorf Tel.: +49 (0) 40 69 60 99 315 Fax: +49 (0) 40 69 60 99 316

E-Mail: Info@4CR.com

www.4CR.com

· 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



Flam. Liq. 3 H226 Flammable liquid and vapour.



health hazard

Resp. Sens. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.



Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Skin Irrit. 2 H315 Causes skin irritation.
 Eye Irrit. 2 H319 Causes serious eye irritation.
 Skin Sens. 1 H317 May cause an allergic skin reaction.
 STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

according to 1907/2006/EC, Article 31

4cR

Revision: 07.09.2018

Printing date 09.09.2021 Version number 37

Trade name: 4CR 4040 Rostversiegelung

(Contd. of page 1)

· Hazard pictograms









GHS02 G

GHS07

S08 GHS0

· Signal word Danger

· Hazard-determining components of labelling:

Hydrocarbons, C9, aromatics aromatic polyisocyanate prepolymer Xylene

m-tolylidene diisocyanate

· Hazard statements

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways. H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

P331 Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Additional information:

EUH204 Contains isocyanates. May produce an allergic reaction.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable. · **vPvB**: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 64742-95-6	Hydrocarbons, C9, aromatics	25-50%
EC number: 918-668-5	🚯 Flam. Liq. 3, H226; 🗞 Asp. Tox. 1, H304; 🔖 Aquatic Chronic	
Reg.nr.: 01-2119455851-35	2, H411; () STOT SE 3, H335-H336	

(Contd. on page 3)

Revision: 07.09.2018

Printing date 09.09.2021

Version number 37

Trade name: 4CR 4040 Rostversiegelung

CAS: 68958-67-8	aromatic polyisocyanate prepolymer	10-259
	💠 Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 108-65-6	2-Methoxy-1-methylethyl acetate	10-259
EINECS: 203-603-9 Reg.nr.: 01-2119475791-29	♦ Flam. Liq. 3, H226; ♦ STOT SE 3, H336	
CAS: 123-86-4	n-Butyl acetate	≤20%
EINECS: 204-658-1 Reg.nr.: 01-2119485493-29	♠ Flam. Liq. 3, H226; ♠ STOT SE 3, H336	
CAS: 1330-20-7	Xylene	≥10-<1.
EINECS: 215-535-7 Reg.nr.: 01-2119488216-32	Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	
CAS: 100-41-4	ethylbenzene	<2.5%
EINECS: 202-849-4 Reg.nr.: 01-2119489370-35	 Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Chronic 3, H412 	
CAS: 26471-62-5	m-tolylidene diisocyanate	≥0.1-<1
EINECS: 247-722-4 Reg.nr.: 01-2119454791-34	Acute Tox. 1, H330; & Resp. Sens. 1, H334; Carc. 2, H351; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412	

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- General information:

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately rinse with water.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: Seek immediate medical advice.
- · 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, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

In case of fire, the following can be released:

Nitrogen oxides (NOx)

Carbon monoxide (CO)

Hydrogen cyanide (HCN)

(Contd. on page 4)

according to 1907/2006/EC, Article 31

Version number 37 Revision: 07.09.2018

Trade name: 4CR 4040 Rostversiegelung

Printing date 09.09.2021

(Contd. of page 3)

- · 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

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

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.

Contain and collect spillages with non-combustible absorbent materials (e.g. sand, earth, diatomaceous earth) and place in a suitable container.

Decontaminate immediately with suitable mixture (flammable):

- as such usable (inflammatory!):

water 45 Vol.% ethanol or isopropanol 50 Vol.% ammonia solution (Density= 0.88) 5 Vol.%

- alternatively (non-flammable):

sodium carbonate 5 Vol.% water 95 Vol.%

Add the same decontaminant to any residues and allow to stand for several days in an non-sealed container until no further reaction occurs. Once this stage is reached, close the container and dispose of in accordance with the waste regulations (see Section 13).

· 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.

Persons with a history of asthma, allergies or chronic or recurrent respiratory diseases should only be employed in processes in which this product is used under appropriate medical supervision.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility:

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

Store away from foodstuffs.

· Further information about storage conditions:

Keep container tightly sealed.

(Contd. on page 5)

CR

Revision: 07.09.2018

Printing date 09.09.2021

Version number 37

Trade name: 4CR 4040 Rostversiegelung

(Contd. of page 4)

Store separately from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohol and water.

- · Storage class: 3
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Additional information about design of technical facilities: No further data; see item 7.

	dients with limit values that require monitoring at the workplace:
108-6	65-6 2-Methoxy-1-methylethyl acetate
WEL	Short-term value: 548 mg/m³, 100 ppm Long-term value: 274 mg/m³, 50 ppm Sk
123-8	66-4 n-Butyl acetate
WEL	Short-term value: 966 mg/m³, 200 ppm Long-term value: 724 mg/m³, 150 ppm
1330-	-20-7 Xylene
WEL	Short-term value: 441 mg/m³, 100 ppm Long-term value: 220 mg/m³, 50 ppm Sk; BMGV
100-4	11-4 ethylbenzene
WEL	Short-term value: 552 mg/m³, 125 ppm Long-term value: 441 mg/m³, 100 ppm Sk
2647	1-62-5 m-tolylidene diisocyanate
WEL	Short-term value: 0.07 mg/m^3 Long-term value: 0.02 mg/m^3 Sen; as -NCO
·Ingre	edients with biological limit values:
1330-	-20-7 Xylene
BMG	V 650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:

All personal protective equipment, including respiratory protective equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH Regulations.

· 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.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

(Contd. on page 6)



Revision: 07.09.2018

Printing date 09.09.2021

Version number 37

Trade name: 4CR 4040 Rostversiegelung

(Contd. of page 5)

· 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.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation



Protective gloves (EN 374)

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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.

Breakthrough 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

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information

· Appearance:

Form: Fluid

According to product specification Colour:

Characteristic · Odour: · Odour threshold: Not determined.

Not determined. · pH-value:

· Change in condition

Undetermined. *Melting point/freezing point:* Initial boiling point and boiling range: 124 °C

25 °C (DIN 53213) · Flash point:

· Flammability (solid, gas): Not applicable.

315 °C (DIN 51794) · Ignition temperature:

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

(Contd. on page 7)



Revision: 07.09.2018

Printing date 09.09.2021

Version number 37

Trade name: 4CR 4040 Rostversiegelung

	(Contd. of page 6
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	0.7 Vol %
Upper:	10.8 Vol %
· Vapour pressure at 20 °C:	10.7 hPa
Density at 20 °C:	0.941 g/cm³ (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/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic at 20 °C:	13 s (DIN 53211/4)
Solvent content:	
VOC (EC)	79.87 %
Solids content (weight-%):	20.1 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 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.
- 10.6 Hazardous decomposition products:

Possible in traces.

Nitrogen oxides

Hydrogen chloride (HCl)

Hydrogen cyanide (prussic acid)

Carbon monoxide

Nitrogen oxides (NOx)

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50	· LD/LC50 values relevant for classification:		
64742-95-	64742-95-6 Hydrocarbons, C9, aromatics		
Oral	LD50	>2,000 mg/kg (rat)	
Dermal	LD50	>2,000 mg/kg (rabbit)	
1330-20-7	1330-20-7 Xylene		
Oral	LD50	5,251 mg/kg (rat)	

(Contd. on page 8)

according to 1907/2006/EC, Article 31

4cR

Revision: 07.09.2018

Printing date 09.09.2021

Version number 37

Trade name: 4CR 4040 Rostversiegelung

		(Contd. of page 7)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/4 h	29 mg/l (rat)
26471-62-5 m-tolylidene diisocyanate		
Oral	LD50	5,110 mg/kg (rat)
Inhalative	LC50/4 h	107 mg/l (rat) (Aerosol)

- · Primary irritant effect:
- · Skin corrosion/irritation

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

- · Additional toxicological information:
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure

May cause respiratory irritation. May cause drowsiness or dizziness.

· STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

· Aspiration hazard

May be fatal if swallowed and enters airways.

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.
- Ecotoxical effects:
- · Remark: Toxic for fish
- · 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.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- · 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.

(Contd. on page 9)



Revision: 07.09.2018

Printing date 09.09.2021

Version number 37

Trade name: 4CR 4040 Rostversiegelung

(Contd. of page 8)

- Uncleaned packaging:
 Recommendation: Disposal must be made according to official regulations.

14.1 UN-Number ADR, IMDG, IATA	UN1263
14.2 UN proper shipping name	
ADR	UN1263 PAINT RELATED MATERIAL
	ENVIRONMENTALLY HAZARDOUS
IMDG	PAINT RELATED MATERIAL (Solvent naphtha), MARINI POLLUTANT
IATA	PAINT RELATED MATERIAL
14.3 Transport hazard class(es)	
ADR	
Class	3 (F1) Flammable liquids.
Label	3
IMDG	
Class Label	3 Flammable liquids.
Lavei IATA	J
<u>₩</u>	
Class Label	3 Flammable liquids. 3
14.4 Packing group	3
ADR, IMDG, IATA	III
14.5 Environmental hazards:	Product contains environmentally hazardous substances Solvent naphtha
Marine pollutant:	Yes
-	Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Flammable liquids.
Hazard identification number (Kemler code): EMS Number:	30 F-E,S-E

(Contd. on page 10)



Revision: 07.09.2018

Printing date 09.09.2021

Version number 37

Trade name: 4CR 4040 Rostversiegelung

	(Contd. of page
· 14.7 Transport in bulk according to A Marpol and the IBC Code	Innex II of Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Transport category	3
Tunnel restriction code	D/E
· <i>IMDG</i>	
· Limited quantities (LQ)	5L
· UN "Model Regulation":	UN 1263 PAINT RELATED MATERIAL, 3, II ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category

E2 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

- · Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · National regulations:
- · Additional classification according to Decree on Hazardous Materials, Annex II:

Class	Share in %
I	≥0.1-<1
NK	50-100

· 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

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

(Contd. on page 11)



Revision: 07.09.2018

Printing date 09.09.2021

Version number 37

Trade name: 4CR 4040 Rostversiegelung

(Contd. of page 10)

H412 Harmful to aquatic life with long lasting effects.

· Classification according to Regulation (EC) No 1272/2008

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

· 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 relatif au transport international 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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids - Category 3

Acute Tox. 4: Acute toxicity - Category 4

Acute Tox. 1: Acute toxicity - Category 1

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation - Category 1

Skin Sens. 1: Skin sensitisation - Category 1

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard - Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

* Data compared to the previous version altered.