

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

- **1.1 Product identifier**
- **Trade name:** 4CR 7235 2K HS Rapid Klarlack
- **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** Clear coating material, Varnish
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
4CR International GmbH & Co. KG
Donnerstrasse 10b
22763 Hamburg
Tel.: +49 (0) 40 69 60 99 30
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.



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



Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H336 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 GB CLP regulation.
- **Hazard pictograms**



GHS02 GHS07 GHS09

- **Signal word** Warning
- **Hazard-determining components of labelling:**
n-Butyl acetate
2-Methoxy-1-methylethyl acetate
Reaction mass of pentamethyl-piperidylsebacate
Pentaerythritol tetrakis(3-mercaptopropionate)
- **Hazard statements**
H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.

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H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards
Results of PBT and vPvB assessment

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients
3.2 Mixtures

• **Description:** Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29	<i>n</i> -Butyl acetate Flam. Liq. 3, H226; STOT SE 3, H336, EUH066	25-50%
CAS: 763-69-9 EINECS: 212-112-9 Reg.nr.: 01-2119463267-34	Ethyl 3-ethoxypropionate Flam. Liq. 3, H226, EUH066	2.5-<10%
CAS: 110-12-3 EINECS: 203-737-8 Reg.nr.: 01-2119472300-51	5-methylhexan-2-one Flam. Liq. 3, H226; Repr. 2, H361; Acute Tox. 4, H332	≥2.5-<3%
CAS: 108-65-6 EINECS: 203-603-9 Reg.nr.: 01-2119475791-29	2-Methoxy-1-methylethyl acetate Flam. Liq. 3, H226; STOT SE 3, H336	2.5-<10%
CAS: 1065336-91-5 EC number: 915-687-0 Reg.nr.: 01-2119491304-40	Reaction mass of pentamethyl-piperidylsebacate Repr. 2, H361f; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1A, H317	≥0.25-<1%
CAS: 77-99-6 EINECS: 201-074-9	1,1,1-Trimethylolpropane Repr. 2, H361fd	<1%
CAS: 7575-23-7 EINECS: 231-472-8 Reg.nr.: 01-2119486981-23	Pentaerythritol tetrakis(3-mercaptopropionate) Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10); Acute Tox. 4, H302; Skin Sens. 1A, H317	≥0.1-<0.25%
CAS: 77-58-7 EINECS: 201-039-8 Reg.nr.: 01-2119496068-27	dibutyltin dilaurate Mut. 2, H341; Repr. 1B, H360FD; STOT SE 1, H370; STOT RE 1, H372; Skin Corr. 1C, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317	≥0.1-<0.25%

• **Additional information:** For the wording of the listed hazard phrases refer to section 16.

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SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **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:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **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** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

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 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 section 13.
Ensure adequate ventilation.
- **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

· 8.1 Control parameters

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

123-86-4 n-Butyl acetate

WEL	Short-term value: 966 mg/m ³ , 200 ppm Long-term value: 724 mg/m ³ , 150 ppm
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110-12-3 5-methylhexan-2-one

WEL	Short-term value: 475 mg/m ³ , 100 ppm Long-term value: 95 mg/m ³ , 20 ppm Sk
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108-65-6 2-Methoxy-1-methylethyl acetate

WEL	Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm Sk
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77-58-7 dibutyltin dilaurate

WEL	Short-term value: 0.2 mg/m ³ Long-term value: 0.1 mg/m ³ as Sn; Sk
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- **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
- **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.

· **Hand protection**

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.

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- **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/face protection**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

- **General Information**
- **Physical state** Fluid
- **Colour:** According to product specification
- **Odour:** Characteristic
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** Undetermined.
- **Boiling point or initial boiling point and boiling range** 124-128 °C (123-86-4 n-Butyl acetate)
- **Flammability** Flammable.
- **Lower and upper explosion limit**
- **Lower:** 1.2 Vol % (123-86-4 n-Butyl acetate)
- **Upper:** 7.5 Vol % (123-86-4 n-Butyl acetate)
- **Flash point:** 27 °C (DIN EN ISO 1523:2002)
- **Auto-ignition temperature:** 370 °C (DIN 51794, 123-86-4 n-Butyl acetate)
- **Decomposition temperature:** Not determined.
- **pH** Not determined.
- **Viscosity:**
- **Kinematic viscosity at 20 °C** 20-23 s (DIN 53211/4)
- **Dynamic:** Not determined.
- **Solubility**
- **water:** Not miscible or difficult to mix.
- **Partition coefficient n-octanol/water (log value)** Not determined.
- **Vapour pressure at 20 °C:** 10.7 hPa (123-86-4 n-Butyl acetate)
- **Vapour pressure at 50 °C:** 55 hPa
- **Density and/or relative density**
- **Density at 20 °C:** 1.005 g/cm³ (DIN EN ISO 2811-1)
- **Relative density** Not determined.
- **Vapour density** Not determined.

· 9.2 Other information

- **Appearance:**
- **Form:** Fluid
- **Important information on protection of health and environment, and on safety.**
- **Ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- **Solvent content:**
- **VOC (EC)** 41.83 %
- **Solids content (weight-%):** 58.2 %
- **Change in condition**
- **Evaporation rate** Not determined.

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· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Flammable liquid and vapour.
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

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:** Carbon monoxide

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **STOT-single exposure** May cause drowsiness or dizziness.

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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Remark:** Toxic for fish

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- **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*

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

SECTION 14: Transport information

· 14.1 UN number or ID number · ADR, IMDG, IATA	UNI263
· 14.2 UN proper shipping name · ADR · IMDG · IATA	UNI263 PAINT, ENVIRONMENTALLY HAZARDOUS PAINT (Polythiols, benzotriazole derivative), MARINE POLLUTANT PAINT
· 14.3 Transport hazard class(es) · ADR	
	
· Class · Label	3 (F1) Flammable liquids. 3
· IMDG	
	
· Class · Label	3 Flammable liquids. 3
· IATA	
	
· Class · Label	3 Flammable liquids. 3

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· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	Product contains environmentally hazardous substances: bis-(1,2,2,6,6-penthamethyl-4-piperidyl)sebacate
· Marine pollutant:	No
· Special marking (ADR):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Hazard identification number (Kemler code):	30
· EMS Number:	F-E,S-E
· Segregation groups	(SGGI) Acids
· Stowage Category	A
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Transport category	3
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	5L
· UN "Model Regulation":	UN 1263 PAINT, 3, III, 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 % |
|-------|------------|
| NK | 25-50 |
- **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.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.

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- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- H341 Suspected of causing genetic defects.
- H360FD May damage fertility. May damage the unborn child.
- H361 Suspected of damaging fertility or the unborn child.
- H361f Suspected of damaging fertility.
- H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
- H370 Causes damage to organs.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- EUH066 Repeated exposure may cause skin dryness or cracking.

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:

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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1A: Skin sensitisation – Category 1A

Muta. 2: Germ cell mutagenicity – Category 2

Repr. 1B: Reproductive toxicity – Category 1B

Repr. 2: Reproductive toxicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

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

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

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

*** Data compared to the previous version altered.**