

**Safety Data Sheet**

according to UK REACH Regulation

WS-Epoxid Härter EH 202

Revision date: 13.03.2025

Product code: 5202

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

WS-Epoxid Härter EH 202

UFI: JGY5-Y9G6-QVJG-G0KY

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

Curing agent (crosslinking agent)

Uses advised against

Do not use for products which come into contact with the food stuffs.

1.3. Details of the supplier of the safety data sheet

Company name: W+S GmbH Lackchemie und Aerosol-Technik

Street: Am Sportplatz 5

Place: D-63791 Karlstein-Dettingen

Telephone: +49 6188 9575-0

Telefax: +49 6188 9575-30

E-mail: info@ws-lackchemie.de

Contact person: Abt. Produkt / Sicherheit

Responsible Department: Abt. Produkt / Sicherheit

1.4. Emergency telephone number: +49 551-19240 GIZ-Nord Poisons Centre**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

Flam. Liq. 3; H226

Skin Irrit. 2; H315

Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

2.2. Label elements**GB CLP Regulation****Hazard components for labelling**

Reactive Organic Substance

xylene

2-methylpropan-1-ol; iso-butanol

ethylbenzene

Signal word: Danger**Pictograms:****Hazard statements**

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

Precautionary statements

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

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- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.
- P370+P378 In case of fire: Use sand, dry chemical or alcohol-resistant foam to extinguish.

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

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
	Reactive Organic Substance			60 - < 65 %
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1; H226 H332 H312 H315 H318			
1330-20-7	xylene			20 - < 25 %
	215-535-7	601-022-00-9		
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2; H226 H332 H312 H315			
78-83-1	2-methylpropan-1-ol; iso-butanol			5 - < 10 %
	201-148-0	603-108-00-1		
	Flam. Liq. 3, Skin Irrit. 2, Eye Dam. 1, STOT SE 3, STOT SE 3; H226 H315 H318 H335 H336			
100-41-4	ethylbenzene			5 - < 10 %
	202-849-4	601-023-00-4		
	Flam. Liq. 2, Acute Tox. 4, STOT RE 2, Asp. Tox. 1; H225 H332 H373 H304			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
		Reactive Organic Substance	60 - < 65 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: ATE = 1100 mg/kg	
1330-20-7	215-535-7	xylene	20 - < 25 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: ATE = 1100 mg/kg	
78-83-1	201-148-0	2-methylpropan-1-ol; iso-butanol	5 - < 10 %
		inhalation: LC50 = > 24 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2830 mg/kg	
100-41-4	202-849-4	ethylbenzene	5 - < 10 %
		inhalation: LC50 = 17,2 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 15400 mg/kg; oral: LD50 = 3500 mg/kg	

Further Information

Full text of R-phrases: see section 16.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Give nothing to eat or drink.

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After inhalation

In all cases of doubt, or when symptoms persist, seek medical advice. In case of inhaling spray mists, consult a doctor immediately and show him box or label. If victim is at risk of losing consciousness, position and transport on their side. Provide fresh air.

After contact with skin

After contact with skin, wash immediately with: Water. Medical treatment necessary. Remove contaminated, saturated clothing immediately. Change contaminated clothing. Wash thoroughly the body (shower or bath).

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

If swallowed, immediately drink: Water. Do NOT induce vomiting. Call a physician immediately.

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

Frequently or prolonged contact with skin may cause dermal irritation.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

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

Foam. Dry extinguishing powder. Carbon dioxide (CO₂). ABC powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air. Burning produces heavy smoke. In case of fire and/or explosion do not breathe fumes. Use water spray jet to protect personnel and to cool endangered containers. Contaminated fire-fighting water must be collected separately.

Additional information

Contaminated fire-fighting water must be collected separately. Remove product from area of fire. Co-ordinate fire-fighting measures to the fire surroundings.

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

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment. Remove all sources of ignition. Provide adequate ventilation. See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Explosion hazard. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

See protective measures under point 7 and 8.

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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Preventive measures: If handled uncovered, arrangements with local exhaust ventilation have to be used. It is recommended to design all work processes always so that the following is excluded: inhalation. skin contact. Eye contact. Take precautionary measures against static discharges.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Vapours may form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Keep container in a well-ventilated place. Keep only in the original container in a cool, well-ventilated place. Take precautionary measures against static discharges.

Hints on joint storage

Do not store together with: Material, rich in oxygen, oxidizing. Materials to avoid: Acid. Base. Material, combustible. Oxidizing agents.

Further information on storage conditions

Keep away from sources of ignition - No smoking. Protect against: heat. Keep/Store only in original container.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
78-83-1	2-Methylpropan-1-ol	50	154		TWA (8 h)	WEL
		75	231		STEL (15 min)	WEL
100-41-4	Ethylbenzene	100	441		TWA (8 h)	WEL
		125	552		STEL (15 min)	WEL
1330-20-7	Xylene: mixed isomers	50	220		TWA (8 h)	WEL
		100	441		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
1330-20-7	Xylene, o-, m-, p- or mixed isomers	methyl hippuric acid (creatinine)	650 mmol/mol	urine	Post shift

8.2. Exposure controls**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Occupational exposure controls: Refer to chapter 7. No further action is necessary.

Individual protection measures, such as personal protective equipment

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Eye/face protection

Suitable eye protection: Framed glasses. Goggles.

Hand protection

Tested protective gloves are to be worn:

Suitable material: NBR (Nitrile rubber), Butyl rubber.

Thickness of glove material: >0,4mm

penetration time (maximum wearing period): >480min

DIN-/EN-Norms EN ISO 374

Skin protection

Suitable protective clothing: Lab apron.

Respiratory protection

Respiratory protection necessary at: exceeding exposure limit values insufficient ventilation, insufficient absorption.

Environmental exposure controls

Refer to chapter 7 No further action is necessary.

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

Physical state:	liquid
Colour:	colourless
Odour:	characteristic
Odour threshold:	not determined

Boiling point or initial boiling point and boiling range:	117 °C	Test method
Lower explosion limits:	1 vol. %	
Upper explosion limits:	11,3 vol. %	
Flash point:	23 °C	
Auto-ignition temperature:	145 °C	
Vapour pressure:	7 hPa	
(at 20 °C)		
Density:	0,85 g/cm ³	DIN 53217

9.2. Other information**Other safety characteristics**

Solvent content:	VOCV (CH): 36,6 %
	VOC (EU): 306 g/l
Solid content:	64 %
Flow time:	56 (3 mm) 3 DIN 53211
(at 20 °C)	

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

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

10.2. Chemical stability

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

10.3. Possibility of hazardous reactions

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

10.4. Conditions to avoid

Keep away from heat. Ignition hazard. Conditions to avoid:

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In case of warming: Danger of bursting container.

10.5. Incompatible materials

Alkalis (alkalis). Acid. Oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapors.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

Acute toxicity, oral. Acute toxicity, inhalant. Toxicological data are not available.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) 1272 mg/kg; ATE (inhalation vapour) 12,18 mg/l; ATE (inhalation dust/mist) 1,622 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	Reactive Organic Substance				
	dermal	ATE 1100 mg/kg			
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
1330-20-7	xylene				
	dermal	ATE 1100 mg/kg			
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
78-83-1	2-methylpropan-1-ol; iso-butanol				
	oral	LD50 > 2830 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rat		
	inhalation (4 h) vapour	LC50 > 24 mg/l	Rat		
100-41-4	ethylbenzene				
	oral	LD50 3500 mg/kg	Rat	GESTIS	
	dermal	LD50 15400 mg/kg	Rabbit	GESTIS	
	inhalation (4 h) vapour	LC50 17,2 mg/l	Rat		
	inhalation dust/mist	ATE 1,5 mg/l			

Irritation and corrosivity

@1501.B015550 @1101.B011136 After skin contact: irritant. Evaluation: non-irritant.

STOT-repeated exposure

Has de-greasing effect on the skin.

Specific effects in experiment on an animal

Rat LD50: 4300 - 5800 mg/kg Acute toxicity, oral

Data apply to the main component.

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

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11.2. Information on other hazards**Further information**

Toxicological data are not available.

SECTION 12: Ecological information**12.1. Toxicity**

Doesn't get into the sewage water as long as the process is carried out according to regulations.

Very toxic for Water fleas.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
78-83-1	2-methylpropan-1-ol; iso-butanol					
	Acute fish toxicity	LC50 1430 mg/l	96 h	Pimephales promelas		
	Acute algae toxicity	ErC50 1250 mg/l		Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50 1439 mg/l	48 h	Daphnia magna		
100-41-4	ethylbenzene					
	Acute fish toxicity	LC50 4,2 mg/l	96 h	Oncorhynchus mykiss	ECHA	
	Acute algae toxicity	ErC50 3,6 mg/l	96 h	Algen	GESTIS	

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
78-83-1	2-methylpropan-1-ol; iso-butanol	0,79
100-41-4	ethylbenzene	3,15

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

No data available

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Dispose of waste according to applicable legislation.

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List of Wastes Code - residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - used product

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself. Hand over to officially registered waste disposal company.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number or ID number: UN 1263

14.2. UN proper shipping name: PAINT

14.3. Transport hazard class(es): 3

14.4. Packing group: III

Hazard label: 3



Classification code: F1

Special Provisions: 163 367 650

Limited quantity: 5 L

Excepted quantity: E1

Transport category: 3

Hazard No: 30

Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1263

14.2. UN proper shipping name: Paint

14.3. Transport hazard class(es): 3

14.4. Packing group: III

Hazard label: 3



Classification code: F1

Special Provisions: 163 367 650

Limited quantity: 5 L

Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 1263

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14.2. UN proper shipping name:

PAINT

14.3. Transport hazard class(es):

3

14.4. Packing group:

III

Hazard label:

3



Special Provisions:

163, 223, 367, 955

Limited quantity:

5 L

Excepted quantity:

E1

EmS:

F-E, S-E

Air transport (ICAO-TI/IATA-DGR)**14.1. UN number or ID number:**

UN 1263

14.2. UN proper shipping name:

PAINT

14.3. Transport hazard class(es):

3

14.4. Packing group:

III

Hazard label:

3



Special Provisions:

A3 A72 A192

Limited quantity Passenger:

10 L

Passenger LQ:

Y344

Excepted quantity:

E1

IATA-packing instructions - Passenger:

355

IATA-max. quantity - Passenger:

60 L

IATA-packing instructions - Cargo:

366

IATA-max. quantity - Cargo:

220 L

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Directive 2004/42/EC on VOC in
paints and varnishes:

VOCV (CH): 36,6 %

VOC (EU): 306 g/l

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D):

2 - obviously hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

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Abbreviations and acronyms

Flam. Liq: Flammable liquids
Acute Tox: Acute toxicity
Asp. Tox: Aspiration hazard
Skin Irrit: Skin irritation
Eye Dam: Eye damage
STOT SE: Specific target organ toxicity - single exposure
STOT RE: Specific target organ toxicity - repeated exposure

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method

Relevant H and EUH statements (number and full text)

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.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.

Further Information

The product is classified and labelled according to EC directives or corresponding national laws.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)