

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Systopp - Colerit EH 2 (crosslinker)

Print date: 19.03.2020

Product code: 43.600.999

Page 1 of 10

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

Systopp - Colerit EH 2 (crosslinker)

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

Curing agent (crosslinking agent)

1.3. Details of the supplier of the safety data sheet

Company name:	KNOPP GmbH.	
Street:	Adolf - Oesterheld - Str. 1	
Place:	D-97337 Dettelbach	
Telephone:	+49932491990	Telefax: +499324919966
e-mail:	info@knopp-chemie.com	
Internet:	www.knopp-chemie.com	

1.4. Emergency telephone number:

Tox Info Suisse Tel.: 145
 Giftnotruf Berlin (24 h): 030 30686700

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard categories:

Acute toxicity: Acute Tox. 4
 Skin corrosion/irritation: Skin Corr. 1B
 Serious eye damage/eye irritation: Eye Dam. 1
 Respiratory or skin sensitisation: Skin Sens. 1
 Reproductive toxicity: Repr. 1B

Hazard Statements:

Harmful if swallowed.
 Causes severe skin burns and eye damage.
 Causes serious eye damage.
 May cause an allergic skin reaction.
 May damage fertility.

2.2. Label elements**Hazard components for labelling**

3-aminomethyl-3,5,5-trimethylcyclohexylamine
 Bisphenol A; 4,4'-isopropylidenediphenol
 M-phenylenebis(methylamine)
 3-aminopropylidimethylamine; N,N-dimethyl-1,3-diaminopropane

Signal word: Danger

Pictograms: GHS05-GHS07-GHS08

**Hazard statements**

H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.

Systopp - Colerit EH 2 (crosslinker)

Print date: 19.03.2020

Product code: 43.600.999

Page 2 of 10

H317 May cause an allergic skin reaction.
H360F May damage fertility.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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.
P310 Immediately call a POISON CENTER/doctor.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
202-859-9	benzyl alcohol	25 - < 30 %
100-51-6	Xn - Harmful R20/22	
603-057-00-5	Acute Tox. 4, Acute Tox. 4; H332 H302	
220-666-8	3-aminomethyl-3,5,5-trimethylcyclohexylamine	10 - < 15 %
2855-13-2	C - Corrosive, Xn - Harmful R21/22-34-43-52-53	
612-067-00-9	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H312 H302 H314 H317 H412	
201-245-8	Bisphenol A; 4,4'-isopropylidenediphenol	5 - < 10 %
80-05-7	Repr. Cat. 3, Xi - Irritant R62-37-41-43-52	
604-030-00-0	Repr. 1B, STOT SE 3, Eye Dam. 1, Skin Sens. 1; H360F H335 H318 H317	
216-032-5	M-phenylenebis(methylamine)	5 - < 10 %
1477-55-0	C - Corrosive, Xn - Harmful R22-34-43-52-53	
	Acute Tox. 4, Skin Corr. 1C, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H302 H314 H318 H317 H412	
202-013-9	2,4,6-tris(dimethylaminomethyl)phenol 100 %	1 - < 5 %
90-72-2	Xn - Harmful, Xi - Irritant R22-36/38	
603-069-00-0	Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2; H302 H319 H315	
203-680-9	3-aminopropylidimethylamine; N,N-dimethyl-1,3-diaminopropane	1 - < 5 %
109-55-7	C - Corrosive, Xn - Harmful R10-22-34-43	
612-061-00-6	Flam. Liq. 3, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1; H226 H302 H314 H317	

Full text of R, H and EUH phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Move victim out of danger zone.

After inhalation

Provide fresh air. In case of breathing difficulties administer oxygen. Medical treatment necessary.

Systopp - Colerit EH 2 (crosslinker)

Print date: 19.03.2020

Product code: 43.600.999

Page 3 of 10

After contact with skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
Medical treatment necessary.

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.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Hazards identification:
Stomach perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

The product itself does not burn. Vapours may form explosive mixtures with air.
In case of fire may be liberated: Carbon monoxide Nitrogen oxides (NOx). Carbon dioxide (CO2).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

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

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.

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.
Provide adequate ventilation as well as local exhaustion at critical locations.

Further information on storage conditions

storage temperature:
of °C: +5 up to °C: +30

Maximum period of storage (time): 12 Monate

7.3. Specific end use(s)

Systopp - Colerit EH 2 (crosslinker)

Print date: 19.03.2020

Product code: 43.600.999

Page 4 of 10

siehe Abschnitt 1.2 *

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

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
80-05-7	Bisphenol A, inhalable dust	-	10		TWA (8 h)	WEL

8.2. Exposure controls**Occupational exposure controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

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.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Suitable respiratory protective equipment: gas filtering equipment (EN 141). Combination filter device (DIN EN 141).. *

Filtertyp: AX *

Hand protection

Single-use gloves. NBR (Nitrile rubber).

penetration time (maximum wearing period): 10 min < BTT < 480 min*
(BTT = Break Through Time)*

Thickness of glove material: > 0,4 mm*

German Industry Norms (DIN) / European Norms (EN): DIN EN 374 *

Eye protection

Suitable eye protection: Tightly sealed safety glasses.

German Industry Norms (DIN) / European Norms (EN): DIN EN 166 *

Skin protection

Suitable protective clothing: Single-use suit. Overall. Boots. *

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

Physical state:	liquid
Colour:	colourless
Odour:	characteristic

Test method

pH-Value (at 20 °C):

Changes in the physical state

Initial boiling point and boiling range: 206 °C

Flash point: >100 °C

Ignition temperature: 380 °C

Vapour pressure:
(at 50 °C) < 5 hPa

Density (at 20 °C): 1,0 g/cm³

Systopp - Colerit EH 2 (crosslinker)

Print date: 19.03.2020

Product code: 43.600.999

Page 5 of 10

Water solubility: partially soluble
 Viscosity / dynamic: 280 mPa·s
 (at 20 °C)

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

No hazardous reactions when handling and storage.

10.2. Chemical stability

No decomposition if stored and handled correctly.

10.3. Possibility of hazardous reactions

Polymerization does not occur.

10.4. Conditions to avoid

Materials to avoid:
 Lewis-acid. Acid, concentrated.
 Carbon dioxide. Nitrite.
 Alcohols. aldehydes.

10.5. Incompatible materials

Brass. Copper containing metals.

10.6. Hazardous decomposition products

Ammonia. Hydrocarbons, aromatic. Amines.
 Carbon dioxide. Carbon monoxide.

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

Acute toxicity, inhalant. Acute toxicity, dermal.

CAS No	Chemical name				Exposure route	Method	Dose	Species	Source
100-51-6	benzyl alcohol				oral	LD50	1230 mg/kg	Rat	GESTIS
					inhalation vapour	ATE	11 mg/l		
					inhalation aerosol	ATE	1,5 mg/l		
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine				oral	LD50	1030 mg/kg	Rat	
					dermal	ATE	1100 mg/kg		
80-05-7	Bisphenol A; 4,4'-isopropylidenediphenol				oral	LD50	3250 mg/kg	Rat	
					dermal	LD50	3000 mg/kg	Rabbit	
1477-55-0	M-phenylenebis(methylamine)				oral	ATE	500 mg/kg		
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol 100 %				oral	ATE	500 mg/kg		
109-55-7	3-aminopropyl dimethylamine; N,N-dimethyl-1,3-diaminopropane				oral	LD50	1870 mg/kg	Rat	GESTIS

Systopp - Colerit EH 2 (crosslinker)

Print date: 19.03.2020

Product code: 43.600.999

Page 6 of 10

Irritation and corrosivity

after ingestion: Irritation and etching. Hazards identification: Stomach perforation.

Sensitising effects

May cause sensitization by skin contact.

Carcinogenic/mutagenic/toxic effects for reproduction

May impair fertility.

Additional information on tests

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

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

LC50: Lepomis macrochirus 96 h: 10 mg/l (Benzylalkohol)

LC50: Leuciscus idus (golden orfe) 96 h: 46 - 100 mg/l

(2,2'-Dimethyl-4,4'-methylenbis(cyclohexylamin)3-Aminomethyl-3,5,5-trimethylcyclohexylamin

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	h	Species	Source
80-05-7	Bisphenol A; 4,4'-isopropylidenediphenol					
	Acute fish toxicity	LC50	4,6 mg/l	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50	2,73 mg/l	96 h	Selenastrum capricornutum	
	Acute crustacea toxicity	EC50	3,9 mg/l	48 h	Daphnia magna	

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
100-51-6	benzyl alcohol	1,05
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	1,9
80-05-7	Bisphenol A; 4,4'-isopropylidenediphenol	3,32

12.4. Mobility in soil

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****Advice on disposal**

Dispose of waste according to applicable legislation.

Appropriate disposal/Product: Waste disposal according to EC Directives 75/442/EEC and 91/689/EEC on waste and hazardous waste in their latest versions. *

Systopp - Colerit EH 2 (crosslinker)

Print date: 19.03.2020

Product code: 43.600.999

Page 7 of 10

Waste disposal number of waste from residues/unused products

080499 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); wastes not otherwise specified

Waste disposal number of used product

080499 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); wastes not otherwise specified

Waste disposal number of contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

Contaminated packaging

Dispose of waste according to applicable legislation.

Appropriate disposal/Product: Waste disposal according to EC Directives 75/442/EEC and 91/689/EEC on waste and hazardous waste in their latest versions. *

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

14.1. UN number: UN2735
14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8
Classification code: C7
Special Provisions: 274
Limited quantity: 5 L
Transport category: 3
Hazard No: 80
Tunnel restriction code: E

Other applicable information (land transport)

E1

Inland waterways transport (ADN)

14.1. UN number: UN2735
14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8
Classification code: C7
Special Provisions: 274
Limited quantity: 5 L

Other applicable information (inland waterways transport)

E1

Marine transport (IMDG)

14.1. UN number: UN2735

according to Regulation (EC) No 1907/2006

Systopp - Colerit EH 2 (crosslinker)

Print date: 19.03.2020

Product code: 43.600.999

Page 8 of 10

14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.**14.3. Transport hazard class(es):** 8**14.4. Packing group:** III

Hazard label: 8

Special Provisions: 223, 274

Limited quantity: 5 L

EmS: F-A, S-B

Other applicable information (marine transport)

E1

Air transport (ICAO-TI/IATA-DGR)**14.1. UN number:** UN2735**14.2. UN proper shipping name:** AMINES, LIQUID, CORROSIVE, N.O.S.**14.3. Transport hazard class(es):** 8**14.4. Packing group:** III

Hazard label: 8

Special Provisions: A3 A803

Limited quantity Passenger: 1 L

IATA-packing instructions - Passenger: 852

IATA-max. quantity - Passenger: 5 L

IATA-packing instructions - Cargo: 855

IATA-max. quantity - Cargo: 60 L

Other applicable information (air transport)

E1

Passenger-LQ: Y841

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

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

1999/13/EC (VOC): 48 % (480 g/l)

Additional information

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

Jugendarbeitsschutzverordnung (ArGV 5, SR 822.115): Jugendliche bis zum vollendeten 18. Altersjahr dürfen bei ihrer Arbeit nur dann mit dieser Zubereitung in Kontakt kommen oder dieser ausgesetzt werden, sofern das Bundesamt für Berufsbildung und Technologie (BBT) oder das Staatssekretariat für Wirtschaft (SECO) eine Ausnahme bewilligt hat.

Mutterschutzverordnung (SR 822.111.52): Schwangere Frauen und stillende Mütter dürfen bei ihrer Arbeit nur dann mit dieser Zubereitung in Kontakt kommen oder dieser ausgesetzt werden, wenn auf Grund einer Risikobeurteilung durch eine Fachperson feststeht, dass im Kontext mit den Tätigkeiten und den getroffenen Schutzmassnahmen die Exposition zu keinen Schädigungen für Mutter und Kind führt.

National regulatory information

Systopp - Colerit EH 2 (crosslinker)

Print date: 19.03.2020

Product code: 43.600.999

Page 9 of 10

Employment restrictions:	Observe restrictions to employment for juvenils 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 contaminating class (D):	3 - highly water contaminating

15.2. Chemical safety assessment

For this mixture a chemical safety assessment has been carried out.

SECTION 16: Other information**Changes**

* Data changed compared with the previous version
weitere Änderung zur Vorgängerversion: Einschubtexte der P-Sätze unter Punkt 2 korrigiert.

Relevant R phrases (number and full text)

10	Flammable.
20/22	Harmful by inhalation and if swallowed.
21/22	Harmful in contact with skin and if swallowed.
22	Harmful if swallowed.
34	Causes burns.
36/38	Irritating to eyes and skin.
37	Irritating to respiratory system.
41	Risk of serious damage to eyes.
43	May cause sensitisation by skin contact.
52	Harmful to aquatic organisms.
53	May cause long-term adverse effects in the aquatic environment.
62	Possible risk of impaired fertility.

Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360F	May damage fertility.
H412	Harmful to aquatic life with long lasting effects.

Further Information

* Data changed compared with the previous version
Die vorliegende Ausgabe des Sicherheitsdatenblatts ersetzt alle vorherigen Ausgaben .

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 information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Safety Data Sheet

according to Regulation (EC) No 1907/2006



Systopp - Colerit EH 2 (crosslinker)

Print date: 19.03.2020

Product code: 43.600.999

Page 10 of 10

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