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

1.1 Product identifier

Trade name/designation OP-Coat 590 Part A

Art-Nr. 301102958

Unique Formula Identifier UFI: 44EY-GXEJ-S20X-K4C7

Hazard components
2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture
resin

1.3 Details of the supplier of the safety data sheet

Supplier
H2N TRADING GmbH
Bgm.-Bombeck-Str. 1
D-22851 Norderstedt
Telephone +49 (0)40 308 598 51
Telefax +49 (0)40 308 598 53
E-mail info@h2n-trading.de
Website www.h2n-trading.de

Department responsible for information:
Telephone +49 (0)40 308 598 51

1.4 Emergency telephone number

Giftinformationszentrale Göttingen GIZ-Nord	+49(0)551/ 19 240
	24/7
H2N TRADING GmbH	+49 (0)40 308 598 51
	Only available during office hours: Monday to Friday from 9.00 am to 5.00 pm.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]	Classification procedure
Acute Tox. 4, H302	
Skin Sens. 1A, H317	
Aquatic Acute 1, H400	
Aquatic Chronic 1, H410	

Hazard statements for health hazards
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.

Hazard statements for environmental hazards
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

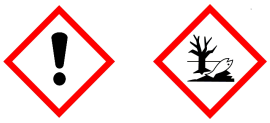
Remark
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard components
2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

Hazard pictograms



GHS07 GHS09

Signal word
Warning

Hazard statements
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements
P102 Keep out of reach of children.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing and eye protection/face protection.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P315 Get immediate medical advice/attention.
P501 Dispose of contents/container to a licensed disposal company.

2.3 Other hazards

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Hazardous ingredients

CAS No	EC No	Index No	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
33007-83-9	251-336-1		2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]	> 90 < 100 weight-%	Acute Tox. 4; H302 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	

REACH No.	Substance name
01-2120770061-65-XXXX	2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]

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).
Remove contaminated, saturated clothing immediately.

Following inhalation
Provide fresh air.

Following skin contact
After contact with skin, wash immediately with plenty of water and soap.
In case of skin reactions, consult a physician.

After eye contact
Rinse immediately carefully and thoroughly with eye-bath or water.
Remove contact lenses.
In case of eye irritation consult an ophthalmologist.

Following ingestion
Induce vomiting when the affected person is not unconscious.
Rinse mouth immediately and drink plenty of water.
Get medical advice/attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
Cough
May cause allergic skin reactions.
Eye contact: Causes irritation.
Symptoms of increased exposure may include headache, dizziness, fatigue, nausea, and vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Moderate poisoning effects are the main concern with this product.

Elimination is therefore the primary treatment goal.

If the chemical is ingested, elimination can be initiated immediately by vomiting or gastric lavage due to the lack of corrosive effects. The subsequent administration of charcoal powder is advisable.
Treat skin and mucous membrane with antihistamines and corticoid preparations.
First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO_2)
alcohol resistant foam

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
In the case of thermal decomposition formation of dangerous gases possible.
Sulphur oxides
Carbon monoxide
Carbon dioxide (CO_2)

5.3 Advice for firefighters

Special protective equipment for firefighters
In case of fire: Wear self-contained breathing apparatus.
Chemical protection suit

Additional information

Use water spray jet to protect personnel and to cool endangered containers.
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

For non-emergency personnel

Ensure adequate ventilation / exhaustion at the workplace.
Keep people away and stay on the upwind side.
Avoid skin and eye contact.
Use personal protection equipment.
Do not breathe gas / fumes / vapor / spray.
Use breathing apparatus if exposed to vapors / spray.

6.2 Environmental precautions

Do not seep away runed out product into ground or body of water.
Do not allow to enter into surface water or drains.
If the product contaminates soil, waterways or drains inform the corresponding authorities.

6.3 Methods and material for containment and cleaning up

For containment

Ensure adequate ventilation.
Stam and take up with absorbent material (e.g. sand, soil, vermiculite).
Send in suitable containers for recovery or disposal.
After taking up the material dispose according to regulation.

6.4 Reference to other sections

Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8
Emergency telephone number: see section 1

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Keep container tightly closed.
If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.
Do not inhale polishing dust.
Protect from heat and direct sunlight.
Keep in a cool, well-ventilated place.
Avoid:
Eye contact
Skin contact
Do not inhale gases/vapours/aerosols.

Advices on general occupational hygiene

Thorough skin-cleansing after handling the product.
Apply skin care products after work.
When using do not eat, drink, smoke, sniff.
Remove contaminated, saturated clothing immediately.
Work in rooms with good ventilation.
Wash hands before breaks and after work.
Use protective skin cream before handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep/Store only in original container.
Keep container tightly closed.

Further information on storage conditions
Store and transport separate of food.
Protect from frost.
storage temperature < 25 °C
Protect from heat and direct solar radiation.

7.3 Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL worker

CAS No	Substance name	DNEL value	DNEL type	Remark
33007-83-9	2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]	0.14 mg/kg bw/day	long-term dermal (systemic)	
33007-83-9	2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]	0.49 mg/m³	long-term inhalative (systemic)	

PNEC

CAS No	Substance name	PNEC Value	PNEC type	Remark
33007-83-9	2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]	0.156 µg/L	aquatic, freshwater	

8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure
Ensure good ventilation, where necessary use fume hood.

Personal protection equipment

Eye/face protection
safety goggles

Hand protection
The selection of the suitable gloves does not only depend on different material, but also on further marks of quality and varies from manufacturer to manufacturer.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.
Since the product is a preparation of several substances, the resistance of glove materials is only conditionally predictable and must therefore be checked before use.
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Body protection:
Impermeable protective clothing

Respiratory protection
Not necessary if the ventilation is sufficient.
Respiratory protection necessary at:
insufficient exhaust
prolonged exposure
Short term: filter apparatus, filter A
Breathing apparatus if sanding dust occurs.
Wear fine dust mask / particle filter P2 if dust is generated.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state
liquid

Colour
colourless
yellowish

Odour
mild

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:	not determined		
Melting point/freezing point	not determined		
Boiling point or initial boiling point and boiling range	480 °C pressure 1013 hPa		
flammability	not determined		
Lower and upper explosion limit	not determined		
Flash point	195 °C		
Auto-ignition temperature	> 200 °C		
Decomposition temperature			No decomposition if used as directed.
pH	not determined		
Viscosity	dynamic 20000 mPa*s (25°C)		
Solubility(ies)	not determined		
Partition coefficient n-octanol/water (log value)	3		
Vapour pressure	not determined		
Density and/or relative density	1.21 g/cm³ (20°C)		
Relative vapour density	not determined		
particle characteristics	not determined		

9.2 Other information

Other information
see technical data sheet

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Protect from frost, heat and direct sunlight.

10.5 Incompatible materials

Oxidising agent

10.6 Hazardous decomposition products

Concerning possible decomposition products see section 5.

Additional information

As a general rule we recommend avoiding the contact with strong chemical reagents, such as acids, bases, reductors and oxidizers.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Animal data

	Effective dose	Method,Evaluation	Source, Remark
Acute oral toxicity	not determined		
Acute dermal toxicity	not determined		
Acute inhalation toxicity	not determined		

Assessment/classification
Harmful if swallowed.

Skin corrosion/irritation

Assessment/classification
No irritant effect known.

Serious eye damage/irritation

Assessment/classification
Causes serious eye irritation.

Sensitisation to the respiratory tract

Assessment/classification
No known sensitization.

Skin sensitisation

Assessment/classification
May cause an allergic skin reaction.

Germ cell mutagenicity

not determined

Carcinogenicity

not determined

Reproductive toxicity

not determined

STOT-single exposure

STOT SE 1 and 2

Assessment/classification
Not classified

STOT SE 3

Irritation to respiratory tract

Assessment/classification
Not classified

Narcotic effects

Assessment/classification
Not classified

STOT-repeated exposure

Other information
No effects known.

Aspiration hazard

Remark
No classification in terms of aspiration.

11.2 Information on other hazards

Information on other hazards

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties		Based on available data, the classification criteria are not met.	

Other information

The product should be handled with the care usual when dealing with chemicals.
Further hazardous properties can not be excluded.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	not determined		
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	not determined		
Chronic (long-term) toxicity to aquatic invertebrate	not determined		

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) toxicity to algae and cyanobacteria	not determined		
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

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 REACH, annex XIII.

12.6 Endocrine disrupting properties

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties		Based on available data, the classification criteria are not met.	

12.7 Other adverse effects

Additional ecotoxicological information

Additional information

Ecological data for the mixture are not available.
Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
200127 *	paint, inks, adhesives and resins containing hazardous substances

Waste code packaging	Waste name
150102	plastic packaging
150104	metallic packaging

Appropriate disposal / Product

The waste code number mentioned is only intended as a recommendation.
The used product may have different properties than the unused one. This safety data sheet cannot provide any information on the used product.
Dispose of waste according to applicable legislation.
Dispose of waste according to "Kreislaufwirtschaftsgesetz (KrWG)".
This means that a distinction must be made between "wastes for recycling" and "wastes for disposal". Particular aspects - in the main concerning delivery - are also governed by the German federal states.

Appropriate disposal / Package

Disposal in accordance with local regulations.

Remark
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	-	-	-
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	-	-	-

14.6 Special precautions for user

No data available

14.7 Maritime transport in bulk according to IMO instruments

No data available

All transport carriers

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

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

No data available

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information

Indication of changes
* Data changed compared with the previous version

Abbreviations and acronyms
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging
ECHA: European Chemicals Agency
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
REACH: Registration, Evaluation and Authorization of Chemicals
PNEC: Predicted No Effect Concentration
SCL: Specific concentration limit
STOT: Specific Target Organ Toxicity
DNEL: derived no-effect level
EC50: Effective Concentration 50%
IC50: Inhibition Concentration 50 %
LC50: Lethal (fatal) Concentration 50%
LD50: Lethal (fatal) Dose 50%
SVHC: Substance of Very High Concern
PBT: persistent and bioaccumulative and toxic
vPvB: very persistent, very bioaccumulative
WGK: water hazard class
See overview table at www.euphrac.eu
Acute Tox. 4, H302: Acute Toxicity (oral), Category 4
Skin Sens. 1A: Skin sensitizer, Sub-category 1A
Aquatic Acute 1: Short-term (acute) aquatic hazard, Category 1
Aquatic Chronic 1: Long-term (chronic) aquatic hazard, Category 1

Key literature references and sources for data
Data sheets of the sub-supplier.
European Chemicals Agency (ECHA)
Full text of Hazard Statements in Section 3 (NOT classification of the mixture).
IFA, GESTIS International Limit Values Database

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
The classification of the mixture was carried out following the calculation method according to the CLP Regulation (1272/2008).

Training advice
See technical data sheet for more information.

Additional information
National and local regulations concerning chemicals shall be observed.
The national special regulations must be implemented by each user on his own responsibility!
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.
Please observe the following disclaimer! Our safety data sheets have been compiled according to effective EU directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.

Relevant H- and EUH-phrases (Number and full text)

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.