suter-kunststoffe ag
swiss-composite.ch
CH-3312 Fraubrunnen 031 763 60 60 Fax 763 60 61

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Epoxy Resin L 20

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

1.1. Product identifier

Epoxy Resin L 20

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

Use of the substance/mixture

Epoxy resin products, low in solvents, sensitising

1.3. Details of the supplier of the safety data sheet

Company: Suter Kunststoffe AG
Aefligenstrasse 3
CH-3312 Fraubrunnen

Telephone: +41 (0)31 763 60 60 Fax: +41 (0)31 763 60 61
e-mail: info@swiss-composite.ch
Responsible Department: Sale-Team

1.4. Emergency telephone number:

Schweizerisches Toxikologisches Informationzentrum
CH-8032 ZÜRICH
Telefon 044-251 51 51
Nationale Notfallnummer: 145

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Hazard categories:
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Respiratory or skin sensitisation: Skin Sens. 1
Hazardous to the aquatic environment: Aquatic Chronic 2
Hazard Statements:
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazardous components which must be listed on the label

epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)

Signal word: Warning

Pictograms:

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face 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.

Special labelling of certain mixtures

EUH205	Contains epoxy constituents. May produce an allergic reaction.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)			50 - 70 %
	500-033-5	603-074-00-8		
	Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H319 H315 H317 H411			
9003-36-5	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-F-(epichlorhydrin)			>=20 - <25 %
	500-006-8	603-074-00-8	01-2119454392-40	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411			
16096-31-4	1,6-Bis(2,3-epoxypropoxy)hexane			15 - 20 %
	240-260-4		01-2119463471-41	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 3; H315 H319 H317 H412			

Full text of 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! Remove affected person from the danger area and lay down. Keep respiratory equipment at hand. First Aid for the person providing it can be dangerous to give mouth-to-mouth resuscitation.

After inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Move victim to fresh air. Put victim at rest and keep warm. In case of irregular breathing or respiratory arrest provide artificial respiration. First Aid for the person providing it can be dangerous to give mouth-to-mouth resuscitation. If unconscious place in recovery position and seek medical advice. In case of inhalation of decomposition products in symptoms may be delayed. The affected person may need to be kept under medical observation 48 hours.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

Remove contact lenses, if present and easy to do. Continue rinsing. Chemical burns must be treated promptly by a physician. In the case of complaints or Symtomen avoid further impacts. In case of

contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. Risk of aspiration. Potential damage to lungs after vomiting. Never give anything by mouth to an unconscious person or a person with cramps. If unconscious place in recovery position and seek medical advice.

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

Gastrointestinal complaints. Prolonged or repeated contact with skin or mucous membrane result in irritation symptoms such as redness, blistering, dermatitis, etc.

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

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media

none known

5.2. Special hazards arising from the substance or mixture

When fire or if heated, a pressure increase will occur and the container may burst. Harmful to aquatic life with long lasting effects. Do not allow to enter into surface water or drains.

Decomposition products may include the following materials: Carbon dioxide (CO2) Carbon monoxide. Nitrogen oxides (NOx).

5.3. Advice for firefighters

Evacuate all non-essential personnel. No action shall be taken involving any personal risk or without suitable training.
Fire-fighters should: Wear breathing apparatus without recirculating air and suitable protective clothing. Fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic protection be chemical incidents.

Additional information

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

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Only allow access to authorised staff. Do not breathe in gases/vapours/aerosols. Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

For emergency responders : Personal protective equipment see Section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains. share Pollution of rivers, lakes or sewers, according to local posited that the relevant competent authorities. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if environmental impacts caused by the product. (Sewers, waterways, soil or air) The containers from spill area.

6.3. Methods and material for containment and cleaning up

Stop leak if safe to do so. Dilute with plenty of water. Wipe up with absorbent material (eg. cloth,

fleece). Absorb with sand, earth, or another absorbent substance.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Personal protection equipment: see section 8. Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid release to the environment. Provide adequate room ventilation, if necessary with vapour extraction at the workplace. Keep only in the original container. Keep receptacles tightly sealed.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Further information on handling

When using do not eat, drink, smoke, sniff. Wash hands with soap and water before eating and drinking See Section 8, additional information on hygiene measures.

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. Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight. Keep opened receptacles upright to prevent leakage.

Advice on storage compatibility

Keep away from incompatible substances under § 10.2. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Hardener (Crosslinker)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including

the four control digits. 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. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	viscous
Colour:	light yellow
Odour:	characteristic

		Test method
pH-Value (at 20 °C):	not determined	
Changes in the physical state		
Melting point:	not determined	
Initial boiling point and boiling range:	> 200 °C	
Flash point:	> 150 °C	ISO 2719
Flammability		
Solid:	not applicable	
Gas:	not applicable	
Lower explosion limits:	not determined	
Upper explosion limits:	not determined	
Ignition temperature:	460 °C	
Auto-ignition temperature		
Solid:	not applicable	
Gas:	not applicable	
Decomposition temperature:	not determined	
Oxidizing properties		
Not oxidizing.		
Vapour pressure: (at 20 °C)	0,1 hPa	
Density (at 23 °C):	1,16 g/cm³	ISO 2811-2
Water solubility:	insoluble	
Solubility in other solvents		
not determined		
Partition coefficient:	not determined	
Viscosity / dynamic: (at 25 °C)	750 - 1,050 mPa·s	ISO 9371
Vapour density:	not determined	
Evaporation rate:	not determined	

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

stable

10.3. Possibility of hazardous reactions

No dangerous reactions at a correct storage and handling.

10.4. Conditions to avoid

none

10.5. Incompatible materials

No known hazardous reactions.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)				
	oral	LD50	11400 mg/kg	Rat	GESTIS
	dermal	LD50	> 22800 mg/kg	Rabbit	GESTIS
9003-36-5	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-F-(epichlorhydrin)				
	oral	LD50	> 2000 mg/kg	Rat	
	dermal	LD50	> 2000 mg/kg	Rabbit	
16096-31-4	1,6-Bis(2,3-epoxypropoxy)hexane				
	oral	LD50	3010 mg/kg	Rat	OECD 401
	dermal	LD50	> 2000 mg/kg	Rat	OECD 402

Additional information on tests

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

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] | [d]	Species	Source
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)					
	Acute fish toxicity	LC50	4,4 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	EPA-660/3-75-009
	Acute algae toxicity	ErC50	9,4 mg/l	72 h	Scenedesmus capricornutum	EPA-660/3-75-009
	Acute crustacea toxicity	EC50	2,8 mg/l	48 h	Daphnia magna	OECD 202
	Acute bacteria toxicity	(> 100 mg/l)		3 h	Activated sludge	
9003-36-5	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-F-(epichlorhydrin)					
	Acute fish toxicity	LC50	2,54 mg/l	96 h		
16096-31-4	1,6-Bis(2,3-epoxypropoxy)hexane					
	Acute fish toxicity	LC50	30 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	OECD 203
	Acute crustacea toxicity	EC50	39 - 57 mg/l	48 h	Daphnia magna	OECD 202

12.2. Persistence and degradability

Poorly biodegradable.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)			
	OECD 301F	5%	28	Manufacturer
	Not readily biodegradable (according to OECD criteria)			
	OECD 301B	6-12%	28	Manufacturer
	Not readily biodegradable (according to OECD criteria)			
9003-36-5	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-F-(epichlorhydrin)			
	OECD 301B	16%	28	Manufacturer
	Not readily biodegradable (according to OECD criteria)			
16096-31-4	1,6-Bis(2,3-epoxypropoxy)hexane			
	OECD 301D	47%	28	Manufacturer
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential

On the basis of existing data about the elimination/degradation and bioaccumulation potential longer term damage to the environment cannot be ruled out.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)	3,24

BCF

CAS No	Chemical name	BCF	Species	Source
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)	31		Quantitative structure-acivity relationship (QSAR)
16096-31-4	1,6-Bis(2,3-epoxypropoxy)hexane	3,57		

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

not applicable

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

080299 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 other coatings (including ceramic materials); wastes not otherwise specified

Waste disposal number of used product

080299 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 other coatings (including ceramic materials); wastes not otherwise specified

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself. Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxydharz)
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9

Classification code:	M6
Special Provisions:	274 335 601
Limited quantity:	5 L
Transport category:	3
Hazard No:	90
Tunnel restriction code:	E

Other applicable information (land transport)

E1

Inland waterways transport (ADN)

14.1. UN number:	UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxydharz)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9

Classification code: M6
Special Provisions: 274 335 601
Limited quantity: 5 L

Other applicable information (inland waterways transport)

E1

Marine transport (IMDG)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9

Marine pollutant: Ja
Special Provisions: 274, 335
Limited quantity: 5 L
EmS: F-A, S-F

Other applicable information (marine transport)

E1

Air transport (ICAO)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9

Special Provisions: A97 A158
Limited quantity Passenger: 30 kg G

IATA-packing instructions - Passenger:	964
IATA-max. quantity - Passenger:	450 L
IATA-packing instructions - Cargo:	964
IATA-max. quantity - Cargo:	450 L

Other applicable information (air transport)

E1

Passenger-LQ: Y964

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

Danger releasing substance: epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

2004/42/EC (VOC): 35 - 50%

National regulatory information

Employment restrictions: Observe employment restrictions for young people.
Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport 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 Harmonized 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
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

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

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

Further Information

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