Safety Data Sheet according to Regulation (EC) No 1907/2006

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LOCTITE ECCOBOND 931-1T1N1 known as 931-1T1N1 55CC EFD FR

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

1.1. Product identifier
LOCTITE ECCOBOND 931-1T1N1 known as 931-1T1N1 55CC EFD FR

Contains:
Triglycidyl-p-aminophenol
Polyoxypropylene diamine

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Epoxy adhesive

1.3. Details of the supplier of the safety data sheet
Henkel AG & Co. KGaA
Henkelstr. 67
40589 Düsseldorf

Germany

Phone: +49 211 797 0
Fax-no.: +49 211 798 2009

ua-productsafety.de@henkel.com

1.4. Emergency telephone number
The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Acute toxicity	Category 4
H302 Harmful if swallowed.	
Route of Exposure: Oral	
Skin corrosion	Category 1C
H314 Causes severe skin burns and eye damage.	
Serious eye damage	Category 1
H318 Causes serious eye damage.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Germ cell mutagenicity	Category 2
H341 Suspected of causing genetic defects.	
Specific target organ toxicity - repeated exposure	Category 2
H373 May cause damage to organs through prolonged or repeated exposure.	
Chronic hazards to the aquatic environment	Category 2
H411 Toxic to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:

Signal word: Danger

Hazard statement:
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

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

Precautionary statement: Response
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 or doctor.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards
None if used properly.
Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:
Adhesive
Base substances of preparation:
Epoxy resin

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Triglycidyl-p-aminophenol 5026-74-4	225-716-2 01-2119954405-36	50- 100 %	Acute Tox. 4; Oral H302 Skin Sens. 1B; Dermal H317 Muta. 2 H341 STOT RE 2; Oral H373 Aquatic Chronic 2 H411
Polyoxypropylene diamine 9046-10-0	01-2119557899-12	20- 40 %	Skin Corr. 1C H314 Aquatic Chronic 3 H412

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air, consult doctor if complaint persists.

Skin contact:
Rinse with running water and soap.
Obtain medical attention if irritation persists.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

SKIN: Rash, Urticaria.

4.3. Indication of any immediate medical attention and special treatment needed
See section: Description of first aid measures

SECTION 5: Firefighting measures

Combustion behaviour:
In case of fire toxic gases can be released.

5.1. Extinguishing media
Suitable extinguishing media:
water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:
High pressure waterjet

5.2. Special hazards arising from the substance or mixture
Toxic and irritating vapors.

5.3. Advice for firefighters
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:
In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid contact with skin and eyes.
Wear protective equipment.

6.2. Environmental precautions
Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up
For small spills wipe up with paper towel and place in container for disposal.
For large spills absorb onto inert absorbent material and place in sealed container for disposal.
Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections
See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.
See advice in section 8

Hygiene measures:

Good industrial hygiene practices should be observed.
Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction.
Keep container tightly sealed.
Refer to Technical Data Sheet

7.3. Specific end use(s)

Epoxy adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Germany

None

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4	aqua (freshwater)		0,008 mg/l				
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4	aqua (marine water)		0,001 mg/l				
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4	sewage treatment plant (STP)		10 mg/l				
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4	sediment (freshwater)				0,101 mg/kg		
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4	sediment (marine water)				0,01 mg/kg		
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4	Air						
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4	soil				0,015 mg/kg		
Polypropylene glycol diamine (MW=230) 9046-10-0	aqua (freshwater)		0,015 mg/l				
Polypropylene glycol diamine (MW=230) 9046-10-0	aqua (marine water)		0,0143 mg/l				
Polypropylene glycol diamine (MW=230) 9046-10-0	aqua (intermittent releases)		0,15 mg/l				
Polypropylene glycol diamine (MW=230) 9046-10-0	sewage treatment plant (STP)		7,5 mg/l				
Polypropylene glycol diamine (MW=230) 9046-10-0	sediment (freshwater)				0,132 mg/kg		
Polypropylene glycol diamine (MW=230) 9046-10-0	sediment (marine water)				0,125 mg/kg		
Polypropylene glycol diamine (MW=230) 9046-10-0	oral				6,93 mg/kg		
Polypropylene glycol diamine (MW=230) 9046-10-0	soil				0,0176 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4	Workers	inhalation	Long term exposure - systemic effects		0,6 mg/m3	
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4	Workers	dermal	Long term exposure - systemic effects		0,17 mg/kg	
Polypropylene glycol diamine (MW=230) 9046-10-0	Workers	dermal	Long term exposure - systemic effects		2,5 mg/kg	
Polypropylene glycol diamine (MW=230) 9046-10-0	Workers	dermal	Long term exposure - local effects		0,623 mg/cm2	
Polypropylene glycol diamine (MW=230) 9046-10-0	General population	dermal	Long term exposure - systemic effects		1,25 mg/kg	
Polypropylene glycol diamine (MW=230) 9046-10-0	General population	oral	Long term exposure - systemic effects		0,04 mg/kg	
Polypropylene glycol diamine (MW=230) 9046-10-0	General population	dermal	Long term exposure - local effects		0,311 mg/cm2	

Biological Exposure Indices:
None

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/extraction.

Respiratory protection:
Ensure adequate ventilation.
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area
Filter type: A (EN 14387)

Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
Protective eye equipment should conform to EN166.

Skin protection:
Wear suitable protective clothing.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	solid amber
Odor	mild
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point	No data available / Not applicable
Flash point	> 93 °C (> 199.4 °F)
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Relative vapour density:	No data available / Not applicable
Density ()	1,1 g/cm3
Bulk density	No data available / Not applicable

Solubility	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Insoluble
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
Reacts with alcohols and amines.
Reacts with oxidants, acids and lyes
Reaction with some curing agents may produce an exothermic reaction which in large masses could cause runaway polymerization.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
No decomposition if stored and applied as directed.

10.5. Incompatible materials
See section reactivity.

10.6. Hazardous decomposition products
Hydrocarbons
carbon oxides.
nitrogen oxides
Rapid polymerisation may generate excessive heat and pressure.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Triglycidyl-p-aminophenol 5026-74-4	LD50	1.037 mg/kg	mouse	OECD Guideline 401 (Acute Oral Toxicity)
Polyoxypropylene diamine 9046-10-0	LD50	2.885,3 mg/kg	rat	not specified

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Triglycidyl-p-aminophenol 5026-74-4	LD0	> 4.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Polyoxypropylene diamine 9046-10-0	LD50	2.979,7 mg/kg	rabbit	not specified

Acute inhalative toxicity:

No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Triglycidyl-p-aminophenol 5026-74-4	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Triglycidyl-p-aminophenol 5026-74-4	slightly irritating	30 s	rabbit	EPA OPP 81-4 (Acute Eye Irritation)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Triglycidyl-p-aminophenol 5026-74-4	sensitising	Maurer optimisation test	guinea pig	not specified

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Triglycidyl-p-aminophenol 5026-74-4	positive	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Triglycidyl-p-aminophenol 5026-74-4	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

Carcinogenicity

No data available.

Reproductive toxicity:

No data available.

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Triglycidyl-p-aminophenol 5026-74-4	NOAEL 50 mg/kg	oral: gavage	28 d daily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:
Do not empty into drains / surface water / ground water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Triglycidyl-p-aminophenol 5026-74-4	LC50	4,2 mg/l	96 h	Cyprinus carpio	OECD Guideline 203 (Fish, Acute Toxicity Test)
Polyoxypropylene diamine 9046-10-0	LC50	772,14 mg/l	96 h	Cyprinodon variegatus	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Triglycidyl-p-aminophenol 5026-74-4	EC50	18 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Polyoxypropylene diamine 9046-10-0	EC50	80 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Triglycidyl-p-aminophenol 5026-74-4	NOEC	4,8 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Triglycidyl-p-aminophenol 5026-74-4	EC50	13 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Triglycidyl-p-aminophenol 5026-74-4	NOEC	4,2 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Polyoxypropylene diamine 9046-10-0	EC10	1,4 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Polyoxypropylene diamine 9046-10-0	EC50	15 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Triglycidyl-p-aminophenol 5026-74-4	EC10	> 10 mg/l	16 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
Polyoxypropylene diamine 9046-10-0	EC50	750 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

The product is not biodegradable.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Triglycidyl-p-aminophenol 5026-74-4	not readily biodegradable.	aerobic	0 - 10 %	29 day	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Polyoxypropylene diamine 9046-10-0	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

12.3. Bioaccumulative potential

No data available.

No substance data available.

12.4. Mobility in soil

Cured adhesives are immobile.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Triglycidyl-p-aminophenol 5026-74-4	0,87	25 °C	QSAR (Quantitative Structure Activity Relationship)
Polyoxypropylene diamine 9046-10-0	1,34	25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Triglycidyl-p-aminophenol 5026-74-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Polyoxypropylene diamine 9046-10-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:
Do not empty into drains / surface water / ground water.
Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:
After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances
The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

14.1. UN number

ADR	3236
RID	Transport forbidden 3236
ADN	3236
IMDG	3236
IATA	Transport forbidden 3236

14.2. UN proper shipping name

ADR	SELF-REACTIVE SOLID TYPE D, TEMPERATURE CONTROLLED (Glycidyloxy epoxy resin,Polyether amine)
RID	Transport forbidden SELF-REACTIVE SOLID TYPE D, TEMPERATURE CONTROLLED (Glycidyloxy epoxy resin,Polyether amine)
ADN	SELF-REACTIVE SOLID TYPE D, TEMPERATURE CONTROLLED (Glycidyloxy epoxy resin,Polyether amine)
IMDG	SELF-REACTIVE SOLID TYPE D, TEMPERATURE CONTROLLED (Glycidyloxy epoxy resin,Polyether amine)
IATA	Transport forbidden Self-reactive solid type D, temperature controlled (Glycidyloxy epoxy resin,Polyether amine)

14.3. Transport hazard class(es)

ADR	4.1
RID	Transport forbidden 4.1
ADN	4.1
IMDG	4.1
IATA	Transport forbidden 4.1

14.4. Packing group

ADR	
RID	Transport forbidden
ADN	
IMDG	
IATA	Transport forbidden

14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Marine pollutant
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable

	Tunnelcode: (D)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

For transport a copy of the agreement from the local competent authority is necessary
Control temperature: 25°C, Emergency temperature: 30°C

Controltemperature	25,00 °C
Emergencytemperature	30,00 °C

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

VOC content (2010/75/EC) < 3 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK:	WGK = 2, water endangering product. Classification according to the mixture rules in German VwVwS regulation annex 4 from 27.July 2005.
WGK:	WGK = 2, significantly water endangering mixture. Classification according to the mixture rules in German AwSV regulation annex 1, number 5.2 from 18. April 2017.
Storage class according to TRGS 510:	5.2

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text
of all abbreviations indicated by codes in this safety data sheet are as follows:

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.