Safety Data Sheet

according to 29 CFR 1910.1200(g)

NuLock, General Purpose Thread Sealant

1. Identification

Product identifier

NuLock, General Purpose Thread Sealant (4289-01)

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Adhesives, sealants

Uses advised against

Any non-intended use.

Details of the supplier of the safety data sheet

Company name:	Nu-Calgon
Address:	2611 Schuetz Road, St. Louis, MO 63043
Telephone:	+314-469-7000 / 800-554-5499
EMail:	Not Available.
Supplier:	See Above.
Emergency phone number:	800-424-9300 (CHEMTREC)

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2A
Respiratory or skin sensitization: Skin Sens. 1
Specific target organ toxicity repeated or prolonged exposure: STOT RE 2

Label elements

29 CFR Part 1910.1200

Signal word: Warning

Pictograms:

Hazard statements

Causes skin irritation
May cause an allergic skin reaction
Causes serious eye irritation
May cause damage to organs through prolonged or repeated exposure

Precautionary statements

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Do not breathe dust/fume/gas/mist/vapors/spray.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

If eye irritation persists: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
Dispose of contents/container to local/regional/national/international regulations.

Hazards not otherwise classified

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Hazardous components

CAS No	Components	Quantity
25852-47-5	Polyglycol dimethacrylate	88.47 %
3290-92-4	Trimethylolpropane trimethacrylate	5 %
80-15-9	cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide	1 %
114-83-0	2'-Phenylacetohydrazide	0.5 %

4. First-aid measures

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).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Dry extinguishing powder. alcohol resistant foam. Atomized water.

Unsuitable extinguishing media

High power water jet.

Specific hazards arising from the chemical

Can be released in case of fire: Carbon monoxide (CO). Carbon dioxide (CO2). Nitrogen oxides (NOx).

Special protective equipment and precautions for fire-fighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Co-ordinate fire-fighting measures to the fire surroundings.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

See protective measures under point 7 and 8.

Environmental precautions

Discharge into the environment must be avoided.

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.
Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections

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

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Wear suitable protective clothing. (See section 8.)

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

General protection and hygiene measures: refer to chapter 8

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.
Recommended storage temperature: 20°C
Protect against: frost. UV-radiation/sunlight. heat. Humidity

8. Exposure controls/personal protection

Control parameters

Additional advice on limit values

To date, no national critical limit values exist.

Exposure controls



Appropriate engineering controls

No special measures are necessary.

Protective and hygiene measures

Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible). Standards: EN 166 or 29 CFR 1910.133

Hand protection

Wear suitable gloves.
Suitable material:
FKM (fluororubber). - Thickness of the glove material 0,4 mm
Breakthrough time >= 8 h
Butyl rubber. - Thickness of the glove material 0,5 mm
Breakthrough time >= 8 h
CR (polychloroprenes, Chloroprene rubber). - Thickness of the glove material 0,5 mm
Breakthrough time >= 8 h
NBR (Nitrile rubber). - Thickness of the glove material 0,35 mm
Breakthrough time >= 8 h
PVC (Polyvinyl chloride). - Thickness of the glove material 0,5 mm
Breakthrough time >= 8 h
The selected protective gloves should satisfy the specifications of standards like EN 374.
Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Suitable protective clothing: Lab apron.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.
Respiratory protection necessary at:
Exceeding exposure limit values
Suitable respiratory protective equipment: half-mask with filter EN 149 or 29 CFR 1910.134 .
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

No special precautionary measures are necessary.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	liquid
Color:	Blue
Odor:	Mild

pH-Value:	not determined

Changes in the physical state

Melting point/freezing point:	not determined
Initial boiling point and boiling range:	not determined
Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
Flash point:	not determined

Sustaining combustion:	Not sustaining combustion

Explosive properties
none

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Ignition temperature:	not determined

Auto-ignition temperature

Gas:	not determined
Decomposition temperature:	not determined

Oxidizing properties
none

Vapor pressure:	not determined
Density:	not determined
Water solubility:	not determined

Solubility in other solvents
not determined

Partition coefficient:	not determined
Viscosity / dynamic:	not determined
Viscosity / kinematic:	not determined
Flow time:	not determined
Vapor density:	not determined
Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	not determined

Other information

VOC content:	0.8%

No information available.

10. Stability and reactivity

Reactivity
No information available.

Chemical stability

Stability: Stable

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

Possibility of hazardous reactions

Hazardous reactions: Will not occur

Refer to chapter 10.5.

Conditions to avoid
Protect against: UV-radiation/sunlight. heat.

Incompatible materials
Materials to avoid: Strong acid. Oxidizing agents, strong. Alkalis (alkalis), concentrated.

Hazardous decomposition products
Can be released in case of fire: Carbon monoxide Carbon dioxide (CO_2). Nitrogen oxides (NO_x).

11. Toxicological information

Information on toxicological effects

Route(s) of Entry

Ingestion: May be harmful if swallowed. Inhalation: May be harmful if inhaled. Skin contact: May cause irritation. Eye contact: May cause irritation.

Toxicocinetics, metabolism and distribution

No data available.

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
3290-92-4	Trimethylolpropane trimethacrylate				
	oral	LD50 >2000 mg/kg	Rat	ECHA Dossier	
	dermal	LD50 >2000 mg/kg	Rabbit	ECHA Dossier	
80-15-9	cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide				
	oral	LD50 382 mg/kg	Rat	IUCLID	
	dermal	LD50 (500) mg/kg	Rat	RTECS	
	inhalation (4 h) vapour	LC50 (200) mg/l	Mouse.	IUCLID	
	inhalation aerosol	ATE 0,5 mg/l			
114-83-0	2'-Phenylacetohydrazide				
	oral	LD50 270 mg/kg	Mouse.	RTECS	

Irritation and corrosivity

Causes skin irritation
Causes serious eye irritation

Sensitizing effects

May cause an allergic skin reaction (Polyglycol dimethacrylate; 2'-Phenylacetohydrazide)
Respiratory or skin sensitization:
People who suffer from skin sensitazion problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.
Trimethylolpropane trimethacrylate:
In-vitro mutagenicity:
OECD Guideline 471 (Bacterial Reverse Mutation Assay) = negative. Literature information: ECHA Dossier
OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) = negative. Literature information: ECHA Dossier
OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) = positive (with metabolic activation). = negative (without metabolic activation). Literature information: ECHA Dossier
In-vivo mutagenicity:
OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo) = negative. Literature information: ECHA Dossier
OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) = negative. Literature information: ECHA

Dossier
Reproductive toxicity: (45d, Rat.) NOAEL = >900 mg/kg(bw)/day; Literature information: ECHA Dossier

alpha,alpha-dimethylbenzyl hydroperoxide; cumene hydroperoxide:
In-vitro mutagenicity:OECD Guideline 471 (Bacterial Reverse Mutation Assay) = positive. Literature information: ECHA Dossier
No experimental indications of mutagenicity in-vivo exist. Literature information: ECHA Dossier

Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - repeated exposure

May cause damage to organs through prolonged or repeated exposure (cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide)
Trimethylolpropane trimethacrylate:
Chronic oral toxicity (45d, Rat.) NOAEL = >900 mg/kg(bw)/day; Literature information: ECHA Dossier

alpha,alpha-dimethylbenzyl hydroperoxide; cumene hydroperoxide:
Subchronic inhalative toxicity (Rat.) NOAEC = 31 mg/m3; Literature information: ECHA Dossier

Carcinogenicity (OSHA):	No ingredient of this mixture is listed.
Carcinogenicity (IARC):	No ingredient of this mixture is listed.
Carcinogenicity (NTP):	No ingredient of this mixture is listed.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No information available.

12. Ecological information

Ecotoxicity

The product has not been tested.

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

No indication of bioaccumulation potential.

Mobility in soil

No data available.

Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.
Non-contaminated packages may be recycled.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

14. Transport information

US DOT 49 CFR 172.101

Proper shipping name: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

UN number: No dangerous good in sense of this transport regulation.

UN proper shipping name: No dangerous good in sense of this transport regulation.

Transport hazard class(es): No dangerous good in sense of this transport regulation.

Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

UN number: No dangerous good in sense of this transport regulation.

UN proper shipping name: No dangerous good in sense of this transport regulation.

Transport hazard class(es): No dangerous good in sense of this transport regulation.

Packing group: No dangerous good in sense of this transport regulation.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user

refer to chapter 6-8

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

15. Regulatory information

U.S. Regulations

National Inventory TSCA

All components are listed in the TSCA 8 (b) inventory as "active" or exempted.
No components are listed under TSCA 12(b)

National regulatory information

SARA Section 304 CERCLA:
Cumene hydroperoxide (80-15-9): Reportable quantity = 10 (4.54) lbs. (kg)
SARA Section 311/312 Hazards:
Polyglycol dimethacrylate (25852-47-5): Immediate (acute) health hazard
Trimethylolpropane trimethacrylate (3290-92-4): Immediate (acute) health hazard
Cumene hydroperoxide (80-15-9): Reactive, Immediate (acute) health hazard, Delayed (chronic) health hazard
2'-Phenylacetohydrazide (114-83-0): Immediate (acute) health hazard
SARA Section 313 Toxic release inventory:
Cumene hydroperoxide (80-15-9): De minimis limit = 1.0 %, Reportable threshold = Standard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Hazardous Materials Information Label (HMIS)

Health:	2
Flammability:	0
Physical Hazard:	0
Personal Protection:	B

NFPA Hazard Ratings

Health:	2
Flammability:	0
Reactivity:	0
Unique Hazard:	-

Changes

Revision date:	05.14.2020
Revision No:	2,0

Rev. 1,00, 23.10.2014, Initial release
Rev. 2,00; 05.14.2020; Changes in chapter: 1-16

Abbreviations and acronyms

ACGIH:	American Conference of Governmental Industrial Hygienists
ASTM:	American Society for Testing and Materials.
ATE:	Acute toxicity estimate
BCF:	Bio concentration factor
ECHA:	European Chemicals Agency
CAS	Chemical Abstracts Service
CFR:	Code of Federal Regulations
DOT:	Department of Transportation
d:	days
EC50:	Half maximal effective concentration
EN:	European Norm
EPA:	Environmental Protection Agency
GHS:	Globally Harmonized System of Classification and Labelling of Chemicals
h:	hours
HMIS:	Hazardous Materials Identification System
IARC:	INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IBC:	Intermediate Bulk Container
IMDG:	International Maritime Code for Dangerous Goods
IATA:	International Air Transport Association
IATA-DGR:	Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO:	International Civil Aviation Organization
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS:	Globally Harmonized System of Classification and Labelling of Chemicals
LOAEL:	Lowest observed adverse effect level
LOAEC:	Lowest observed adverse effect concentration
LC50:	Lethal concentration, 50 percent
LD50:	Lethal dose, 50 percent
MARPOL:	marine pollution
NOAEL:	No observed adverse effect level
NOAEC:	No observed adverse effect concentration
NTP:	National Toxicology Program
N/A:	not applicable
NFPA:	National Fire Protection Association
UN:	United Nations
OECD:	Organization for Economic Co-operation and Development
OSHA:	Occupational Safety and Health Administration
PBT:	Persistent bio-accumulative toxic
RTECS:	Registry of Toxic Effects of Chemical Substances
REACH:	Registration, Evaluation, Authorization and Restriction of Chemicals
SARA:	Superfund Amendments and Reauthorization Act
STEL:	short-term exposure limits

TSCA: Toxic Substances Control Act
TWA: time weighted average
VOC: Volatile Organic Compounds

Other data

Classification according 29 CFR Part 1910.1200: - Classification procedure:
Health hazards: Calculation method.
Environmental hazards: Calculation method.
Physical hazards: On basis of test data and / or calculated and / or estimated.

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.)