



Safety Data Sheet

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LOCTITE DRI 202 ECO known as LOCTITE DRI LOC 202 ECO

SDS No. : 454387

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1. Identification of the substance/preparation and of the company/undertaking

Product name LOCTITE DRI 202 ECO known as LOCTITE DRI LOC 202 ECO

Suggestion application & limitation of use: Anaerobic

Company information, address, tel No.:

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2. Hazards identification

Product hazard classification:

Hazard Class	Hazard Category
Chronic hazards to the aquatic environment	Category 3

GHS label content:

Hazard statement: H412 Harmful to aquatic life with long lasting effects.

Precautionary Statement (Prevention): P273 Avoid release to the environment.

Precautionary Statement (Disposal): P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

3. Composition / information on ingredients**Pure substance/ Mixture:** Substance

Traditional Chinese name /English name for the hazardous compositions:	CAS-No.	Percentage/Conc.
乙氧化雙酚A 甲基丙烯酸雙酯 Bisphenol A, 2-EO dimethacrylate	41637-38-1	>= 30 - < 50 %
9-[2-(乙氧羰基)苯基]-3,6-二(乙氨基)-2,7-二甲基氯化佔噏翁 9-[2-(Ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethylxanthylum chloride	989-38-8	>= 1 - < 2.5 %
甲醇 Methanol	67-56-1	>= 0.1 - < 1 %

4. First aid measures**First aid measure for different exposure ways:**

Inhalation: Move to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.
Get medical attention.

Skin contact: Immediately flush skin with plenty of water (using soap, if available).
Remove contaminated clothing and footwear.
Wash clothing before reuse.
Get medical attention.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel.
Never give anything by mouth to an unconscious person.
Get medical attention.

5. Fire fighting measures

Proper extinguishing agent: Water spray (fog), foam, dry chemical or carbon dioxide.

Decomposition products in case of fire: Toxic fumes.
Oxides of carbon.
Irritating organic vapours.

Special hazard during the fire-fighting process: Uncontrolled polymerization may occur at high temperatures resulting in explosions or rupture of storage containers.

Special protect devices of fire-fighting team: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
In case of fire, keep containers cool with water spray.

6. Accidental release measures

Personal precautions: Avoid contact with skin and eyes.

Environmental precautions: Do not let product enter drains.

Clean method: 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.

7. Handling and storage

Safety handling: Use only with adequate ventilation.
Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling.
Keep container closed.
Refer to Section 8.

Storage: Store in a cool place in closed original container.

8. Exposure controls / personal protection

Engineering control: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Ingredient [Regulated substance]	Value type	ppm	mg/m ³	Form of exposure	Remarks
METHYL ALCOHOL 67-56-1	Time Weighted Average (TWA):	200	262		TW_PEL
METHYL ALCOHOL 67-56-1	Skin designation:				TW_PEL Can be absorbed through the skin.
METHYL ALCOHOL 67-56-1	Short-term exposure limit:	250	327.5		TW_PEL

Personal protect equipment:

Respiratory protection: Use only in well-ventilated areas.

Hand protection:

The use of chemical resistant gloves such as Nitrile is recommended.

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

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:

Wear protective glasses.

Skin and body protection:

Wear suitable protective clothing.

Hygiene control:

Avoid contact with skin and eyes. Remove soiled or soaked clothing immediately. Wash off any contamination that gets onto the skin with plenty of water and soap, skin care. Wash thoroughly after handling.

Do not eat, drink, smoke or take snuff while working.

Keep absolute tidiness at the working place.

9. Physical and chemical properties

Appearance:	Liquid
	Green
Odor:	Mild
Odor threshold:	Not available.
pH:	4 - 6.5
Melting point:	Not available.
Boiling point/range:	Not available.
Density:	Not available.
Vapor pressure:	20 mm hg 72 °F
Vapor density:	Not available.
Flammability:	Not flammable.
Flash point:	> 130 °C
Explosion limit:	Measure method: Not available.

Auto-ignition temperature: Not available.
Solubility in water Partially soluble
Octanol / water distribution coefficient: Not applicable
Evaporation rate: Not available.

10. Stability and reactivity

Stability: Stable under recommended storage conditions.

Incompatible materials: Oxidizing agents.
Oxygen scavengers.
Free radical initiators.
Reducing agents.

Condition to avoid: Stable under normal conditions of storage and use.

Decomposed material: carbon oxides.

Hazardous polymerization: Will not occur.

11. Toxicological information

General toxicological information:

No experimental toxicological data on the preparation as such is available.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Bisphenol A, 2-EO dimethacrylate 41637-38-1	LD50 LD50	> 2,000 mg/kg > 2,000 mg/kg	oral dermal		rat rat	OECD Guideline 423 (Acute Oral toxicity) OECD Guideline 402 (Acute Dermal Toxicity) Expert judgement
Methanol 67-56-1	Acute toxicity estimate (ATE)	300 mg/kg	oral			

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Bisphenol A, 2-EO dimethacrylate 41637-38-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Methanol 67-56-1	not irritating	20 h	rabbit	BASF Test

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Bisphenol A, 2-EO dimethacrylate 41637-38-1	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Methanol 67-56-1	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Bisphenol A, 2-EO dimethacrylate 41637-38-1	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Methanol 67-56-1	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Bisphenol A, 2-EO dimethacrylate 41637-38-1	negative negative negative positive negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay in vitro mammalian cell micronucleus test in vitro mammalian cell micronucleus test mammalian cell gene mutation assay	with and without with and without with and without with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test) OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Methanol 67-56-1	negative negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian cell micronucleus test mammalian cell gene mutation assay	with and without with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) Chromosome Aberration Test OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Methanol 67-56-1	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Bisphenol A, 2-EO dimethacrylate 41637-38-1	NOAEL=300 mg/kg	oral: gavage	4 weeks daily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
Methanol 67-56-1	NOAEL=6.63 mg/l	inhalation	4 weeks 6 h/d, 5 d/w	rat	not specified

12. Ecological information

Ecological toxic information: Do not empty into drains / surface water / ground water.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
9-[2-(Ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethylxanthylum chloride 989-38-8	EC50	0.16 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methanol 67-56-1	LC50	15,400 mg/l	Fish	96 h	Lepomis macrochirus	EPA-660 (Methods for Acute Toxicity Tests with Fish, Macroinvertebrates and Amphibians)
Methanol 67-56-1	NOEC	7,900 mg/l	Fish	200 h	Oryzias latipes	OECD Guideline 210 (fish early life stage toxicity test)
Methanol 67-56-1	EC50	18,260 mg/l	Daphnia	96 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methanol 67-56-1	EC50	22,000 mg/l	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methanol 67-56-1	IC50	> 1,000 mg/l	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Bisphenol A, 2-EO dimethacrylate 41637-38-1	not readily biodegradable.	aerobic	24 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
9-[2-(Ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethylxanthylum chloride 989-38-8			0 - 60 %	OECD 301 A - F
Methanol 67-56-1	readily biodegradable	aerobic	82 - 92 %	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Bisphenol A, 2-EO dimethacrylate 41637-38-1	5.3 - 5.62					OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Methanol 67-56-1	-0.77					other guideline:

13. Disposal considerations

Waste disposal of product: Waste disposal with the approval of the responsible local authority.

14. Transport information

Road transport ADR:
Not dangerous goods

Railroad transport RID:
Not dangerous goods

Marine transport IMDG:
Not dangerous goods

Air transport IATA:
Not dangerous goods

15. Regulatory information

Labor Safety and Health Act

Regulation of Labeling and Hazard Communication of Dangerous and Harmful Substances

Standards on Workplace Atmosphere of Dangerous and Hazardous Materials

Regulations Governing Road Traffic Safety

Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste

16. Other information

Reference information:

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