



Safety Data Sheet

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LOCTITE 243 MEDIUM STRENGTH THREADLOCKER known
as Loctite 243 10ML AU

SDS No. : 316211
V001.3

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SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: LOCTITE 243 MEDIUM STRENGTH THREADLOCKER known as Loctite 243 10ML AU

Intended use: Threadlocker

Supplier:
Henkel New Zealand Ltd
2 Allens Rd
Auckland, 2013
New Zealand
Phone: +64 (9) 272-6710

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO).
Not classified as Dangerous Goods under the Land Transport Rule: Dangerous Goods 2005.

GHS Classification:

| <u>Hazard Class</u> | <u>Hazard Category</u> | <u>Target organ</u> |
|---|------------------------|------------------------------|
| Skin irritation | Category 2 | |
| Serious eye irritation | Category 2A | |
| Skin sensitizer | Category 1 | |
| Target Organ Systemic Toxicant - Single exposure | Category 3 | respiratory tract irritation |
| Acute hazards to the aquatic environment | Category 2 | |
| Chronic hazards to the aquatic environment | Category 3 | |

Hazard pictogram:



Signal word:

Warning

| | |
|------------------------------------|---|
| Hazard statement(s): | H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H401 Toxic to aquatic life. H412 Harmful to aquatic life with long lasting effects. |
| Precautionary Statement(s): | |
| Prevention: | P261 Avoid breathing mist/vapours. P264 Wash hands thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves, eye protection, and face protection. |
| Response: | P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. |
| Storage: | P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. |
| Disposal: | P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations. |

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

General chemical description: Mixture
Type of preparation: Methacrylate resin based threadlocker

Identity of ingredients:

| Chemical ingredients | CAS-No. | Proportion |
|---|------------|-------------|
| Tetramethylene dimethacrylate | 2082-81-7 | 20- < 30 % |
| 2,4,6-Triallyloxy-1,3,5-triazine | 101-37-1 | 1- < 10 % |
| 2-[[2,2-bis[[[1-oxoallyl]oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate | 94108-97-1 | 1- < 10 % |
| Silane, dichlorodimethyl-, reaction products with silica | 68611-44-9 | 1- < 10 % |
| Ethene, homopolymer | 9002-88-4 | 1- < 10 % |
| Propane-1,2-diol | 57-55-6 | 1- < 10 % |
| α , α -dimethylbenzyl hydroperoxide | 80-15-9 | 0.1- < 1 % |
| maleic acid | 110-16-7 | 0.1- < 1 % |
| Acetic acid, 2-phenylhydrazide | 114-83-0 | 0.1- < 1 % |
| methacrylic acid | 79-41-4 | 0.1- < 1 % |
| non hazardous ingredients~ | | 10- <= 30 % |

SECTION 4 FIRST AID MEASURES

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| Ingestion: | Rinse mouth, do not induce vomiting, consult a doctor. |
| Skin: | Rinse with running water and soap. Seek medical advice. |
| Eyes: | Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary. |

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| Inhalation: | Move to fresh air. If symptoms persist, seek medical advice. |
| First Aid facilities: | Eye wash Normal washroom facilities |
| Medical attention and special treatment: | Treat symptomatically. |

SECTION 5. FIRE FIGHTING MEASURES

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| Suitable extinguishing media: | If product is involved in fire extinguish with dry powder, foam or carbon dioxide. |
| Decomposition products in case of fire: | In the event of a fire, carbon monoxide (CO), carbon dioxide (CO ₂) and nitrogen oxides (NO _x) can be released. Irritating organic vapours. |
| Particular danger in case of fire: | None |
| Special protective equipment for fire-fighters: | Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

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| Personal precautions: | Avoid skin and eye contact. Ensure adequate ventilation. |
| Environmental precautions: | Do not let product enter drains. |
| Clean-up methods: | 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. |

SECTION 7. HANDLING AND STORAGE

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| Precautions for safe handling: | Use only in well-ventilated areas. Avoid skin and eye contact. |
|---------------------------------------|---|

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace exposure standards:

| Ingredient [Regulated substance] | form of exposure | TWA (ppm) | TWA (mg/m3) | Ceiling | STEL (ppm) | STEL (mg/m3) |
|--|-------------------------|-----------|-------------|---------|------------|--------------|
| Particulates not otherwise classified, respirable dust Respirable dust (not otherwise classified) 68611-44-9 | Respirable dust. | | 3 | | | |
| Particulates not otherwise classified, inhalable dust Inhalable dust (not otherwise classified) | Inhalable dust. | | 10 | | | |
| PARTICULATES NOT OTHERWISE CLASSIFIED, RESPIRABLE DUST 9002-88-4 | Respirable dust. | | 3 | | | |
| PARTICULATES NOT OTHERWISE CLASSIFIED, INHALABLE DUST | Inhalable dust. | | 10 | | | |
| PROPANE-1,2-DIOL, PARTICULATES ONLY 57-55-6 | Particulate. | | 10 | | | |
| PROPANE-1,2-DIOL, VAPOUR & PARTICULATES | Vapor and particulates. | 150 | 474 | | | |
| METHACRYLIC ACID 79-41-4 | | 20 | 70 | | | |

Biological Exposure Indices:

None

Engineering controls:

Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination.

Eye protection:

Wear protective glasses.

Skin protection:

Wear suitable protective clothing.
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.
The use of chemical resistant gloves such as Neoprene or Natural Rubber is recommended

Respiratory protection:

Use only in well-ventilated areas.
If inhalation risk exists, wear a respirator or air supplied mask complying with the requirements of AS/NZS 1715 and AS/NZS 1716.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Blue
LiquidBlue
Liquid

Odor:

CharacteristicCharacteristic

pH:

Not applicable, Product is non-polar/aprotic.

Melting point / freezing point:

Not applicable, Product is a liquid

Boiling point:

> 150 °C (> 302 °F)

Flash point:

> 100 °C (> 212 °F)

Vapor pressure:

< 0.1 mm hg

| | |
|---|---|
| (; 27 °C (80.6 °F); 25 °C (77 °F)no method / method unknown; 50 °C (122 °F); 20 °C (68 °F)) | 1.7 mbar < 300 mbar < 0.13 mbar |
| Vapor density: | > 1 |
| Density: | 1.08 g/cm ³ 31.09 g/cm ³ |
| Auto ignition: | Not available. |
| Decomposition temperature: | |
| Viscosity (dynamic): | 1,700 - 2,400 mPa.s(Brookfield; Instrument: RVT; speed of rotation: 20 min ⁻¹ ; Spindle No: 3; Method: ; LCT STM 10; Viscosity Brookfield) |

SECTION 10. STABILITY AND REACTIVITY

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| Conditions to avoid: | Keep away from heat, spark and flame. |
| Incompatible materials: | Strong acids and oxidizing agents. Oxygen scavengers. Strong alkalis. Reducing agents. Other polymerization initiators. |
| Hazardous decomposition products: | In case of fire toxic gases can be released. Irritating vapors. Oxides of carbon. |

SECTION 11 TOXICOLOGICAL INFORMATION

Health Effects:

Ingestion: May be harmful if swallowed.
Skin: Causes skin irritation.
May cause skin sensitization.
Eyes: Causes serious eye irritation.
Inhalation: May cause respiratory tract irritation.

Aggravated med. condition: Eye, skin, and respiratory disorders.

Acute toxicity:

| Hazardous components CAS-No. | Value type | Value | Route of application | Exposure time | Species | Method |
|---|--|---|--|------------------|-------------------------|---|
| Tetramethylene dimethacrylate 2082-81-7 | LD50 LD50 | 10,066 mg/kg > 3,000 mg/kg | oral dermal | | rat rabbit | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) not specified |
| 2,4,6-Triallyloxy-1,3,5- triazine 101-37-1 | LD50 LD50 | 753 mg/kg > 2,000 mg/kg | oral dermal | | rat rabbit | OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 402 (Acute Dermal Toxicity) |
| 2-[[2,2-bis[[[1- oxoallyl]oxy]methyl]buto xy]methyl]-2-ethyl-1,3- propanediyl diacrylate 94108-97-1 | LD50 LD50 | > 5,000 mg/kg > 2,000 mg/kg | oral dermal | | rat rat | OECD Guideline 401 (Acute Oral Toxicity) not specified |
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | LD50 LC50 LD50 | > 5,000 mg/kg > 5.01 mg/l > 2,000 mg/kg | oral inhalation dermal | 4 h | rat rat rat | OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class (ATC) Method) OECD Guideline 402 (Acute Dermal Toxicity) |
| Ethene, homopolymer 9002-88-4 | Acute toxicity estimate (ATE) Acute toxicity estimate (ATE) Acute toxicity estimate (ATE) | > 5,000 mg/kg > 5 mg/l > 5,000 mg/kg | oral inhalation dermal | 4 h | | Expert judgement Expert judgement Expert judgement |
| Propane-1,2-diol 57-55-6 | LD50 LC50 LD50 | 22,000 mg/kg > 317,042 mg/l > 2,000 mg/kg | oral inhalation dermal | 2 h | rat rabbit rabbit | not specified not specified not specified |
| α , α -dimethylbenzyl hydroperoxide 80-15-9 | LD50 LC50 Acute toxicity estimate (ATE) | 382 mg/kg 1,370 mg/l 1,100 mg/kg | oral inhalation dermal | 4 h | rat rat | other guideline: not specified Expert judgement |
| maleic acid 110-16-7 | LD50 LD50 | 708 mg/kg 1,560 mg/kg | oral dermal | | rat rabbit | not specified not specified |
| Acetic acid, 2- phenylhydrazide 114-83-0 | LD50 | 270 mg/kg | oral | | rat | not specified |
| methacrylic acid 79-41-4 | LD50 LC50 Acute toxicity estimate (ATE) LD50 Acute toxicity estimate | 1,320 mg/kg > 3.6 mg/l 3.61 mg/l 500 - 1,000 mg/kg 500 mg/kg | oral inhalation inhalation dermal dermal | 4 h | rat rat rabbit | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) Expert judgement Dermal Toxicity Screening Expert judgement |

| | | | | | |
|--|-------|--|--|--|--|
| | (ATE) | | | | |
|--|-------|--|--|--|--|

Skin corrosion/irritation:

| Hazardous components CAS-No. | Result | Exposure time | Species | Method |
|--|----------------|------------------|---------|---|
| Tetramethylene dimethacrylate 2082-81-7 | not irritating | 24 h | rabbit | FDA Guideline |
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | not irritating | 4 h | rabbit | not specified |
| Propane-1,2-diol 57-55-6 | not irritating | 4 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| α , α -dimethylbenzyl hydroperoxide 80-15-9 | corrosive | | rabbit | Draize Test |
| maleic acid 110-16-7 | irritating | 24 h | human | Patch Test |
| methacrylic acid 79-41-4 | corrosive | 3 min | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

Serious eye damage/irritation:

| Hazardous components CAS-No. | Result | Exposure time | Species | Method |
|---|-----------------------|------------------|---------|--|
| Tetramethylene dimethacrylate 2082-81-7 | not irritating | | rabbit | equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| 2-[[2,2-bis[[[1-oxoallyl]oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 94108-97-1 | Category 2 (irritant) | | rabbit | EU Method B.5 (Acute Toxicity: Eye Irritation / Corrosion) |
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | not irritating | | rabbit | not specified |
| Ethene, homopolymer 9002-88-4 | not irritating | 24 h | rabbit | FDA Guideline |
| Propane-1,2-diol 57-55-6 | not irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| maleic acid 110-16-7 | highly irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| methacrylic acid 79-41-4 | corrosive | | rabbit | Draize Test |

Respiratory or skin sensitization:

| Hazardous components CAS-No. | Result | Test type | Species | Method |
|--|-----------------|------------------------------------|------------|--|
| Tetramethylene dimethacrylate 2082-81-7 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | not sensitising | Patch-Test | human | human repeat insult patch test |
| Ethene, homopolymer 9002-88-4 | not sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| Propane-1,2-diol 57-55-6 | not sensitising | Guinea pig maximisation test | guinea pig | equivalent or similar to OECD Guideline 406 (Skin Sensitisation) |
| maleic acid 110-16-7 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| maleic acid 110-16-7 | sensitising | Mouse local lymphnode assay (LLNA) | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| methacrylic acid 79-41-4 | not sensitising | Buehler test | guinea pig | equivalent or similar to 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 |
|--|----------------------------------|--|--|---------------------|--|
| Tetramethylene dimethacrylate 2082-81-7 | negative negative positive | in vitro mammalian chromosome aberration test bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test | with and without with and without with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | negative negative | bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test | with and without with and without | | Ames Test Chromosome Aberration Test |
| Ethene, homopolymer 9002-88-4 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | Ames Test |
| Propane-1,2-diol 57-55-6 | negative negative | bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test | without with and without | | Ames Test OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Propane-1,2-diol 57-55-6 | negative negative negative | oral: gavage intraperitoneal oral: gavage | | rat mouse rat | not specified not specified not specified |
| α , α -dimethylbenzyl hydroperoxide 80-15-9 | positive | bacterial reverse mutation assay (e.g Ames test) | without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| α , α -dimethylbenzyl hydroperoxide 80-15-9 | negative | dermal | | mouse | not specified |
| maleic acid 110-16-7 | negative negative | bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay | no data with and without | | Ames Test OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| methacrylic acid 79-41-4 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| methacrylic acid 79-41-4 | negative negative | inhalation oral: gavage | | mouse mouse | equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test) equivalent or similar to 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 |
|--|---------------------------|-------------------------|--|---------|--|
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | NOAEL=500 mg/kg | oral: feed | 5-8 wdaily | rat | not specified |
| Propane-1,2-diol 57-55-6 | NOAEL=1,700 mg/kg | oral: feed | 2 yearsdaily | rat | not specified |
| Propane-1,2-diol 57-55-6 | NOAEL=1000 mg/m3 | inhalation | 90 d6 h/d, 5 d/w | rat | not specified |
| α , α -dimethylbenzyl hydroperoxide 80-15-9 | | inhalation: aerosol | 6 h/d5 d/w | rat | not specified |
| maleic acid 110-16-7 | NOAEL= \geq 40 mg/kg | oral: feed | 90 ddaily | rat | OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |
| methacrylic acid 79-41-4 | | inhalation | 90 d6 h/d, 5 d/w | rat | OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day) |

SECTION 12. ECOLOGICAL INFORMATION

General ecological information:

Do not empty into drains / surface water / ground water.

Ecotoxicity:

H401 Toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Toxicity:

| Hazardous components CAS-No. | Value type | Value | Acute Toxicity Study | Exposure time | Species | Method |
|---|---------------|-----------------|----------------------------|------------------|--|---|
| Tetramethylene dimethacrylate 2082-81-7 | LC50 | 32.5 mg/l | Fish | 48 h | | DIN 38412-15 |
| Tetramethylene dimethacrylate 2082-81-7 | EC50 | 9.79 mg/l | Algae | 72 h | Desmodesmus subspicatus | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Tetramethylene dimethacrylate 2082-81-7 | NOEC | 2.11 mg/l | Algae | 72 h | Desmodesmus subspicatus | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Tetramethylene dimethacrylate 2082-81-7 | NOEC | 20 mg/l | Bacteria | 28 d | activated sludge, domestic | not specified |
| 2,4,6-Triallyloxy-1,3,5- triazine 101-37-1 | LC50 | 4.36 mg/l | Fish | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 2,4,6-Triallyloxy-1,3,5- triazine 101-37-1 | EC50 | 19.4 mg/l | Daphnia | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 2,4,6-Triallyloxy-1,3,5- triazine 101-37-1 | EC0 | 5 mg/l | Bacteria | 3 h | | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| 2-[[[2,2-bis[(1- oxoallyl)oxy]methyl]butoxy] methyl]-2-ethyl-1,3- propanediyl diacrylate 94108-97-1 | LC50 | 1.2 mg/l | Fish | 96 h | Cyprinus carpio | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 2-[[[2,2-bis[(1- oxoallyl)oxy]methyl]butoxy] methyl]-2-ethyl-1,3- propanediyl diacrylate 94108-97-1 | EC50 | > 10 - 100 mg/l | Daphnia | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 2-[[[2,2-bis[(1- oxoallyl)oxy]methyl]butoxy] methyl]-2-ethyl-1,3- propanediyl diacrylate 94108-97-1 | EC50 | > 12 mg/l | Algae | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2-[[[2,2-bis[(1- oxoallyl)oxy]methyl]butoxy] methyl]-2-ethyl-1,3- propanediyl diacrylate 94108-97-1 | NOEC | > 0.1 - 1 mg/l | Algae | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | LC50 | > 10,000 mg/l | Fish | 96 h | Brachydanio rerio (new name: Danio rerio) | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | EL50 | > 10,000 mg/l | Daphnia | 24 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | EC50 | > 173 mg/l | Algae | 72 h | Desmodesmus subspicatus | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | EC50 | > 2,500 mg/l | Bacteria | 3 h | activated sludge of a predominantly domestic sewage | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| Ethene, homopolymer 9002-88-4 | LC50 | > 100 mg/l | Fish | 96 h | Leuciscus idus | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Ethene, homopolymer 9002-88-4 | EC0 | > 1,000 mg/l | Bacteria | 3 h | not specified | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |

| | | | | | | |
|--|------|--------------|----------|--------|---|--|
| Propane-1,2-diol 57-55-6 | LC50 | 51,600 mg/l | Fish | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) other guideline: |
| Propane-1,2-diol 57-55-6 | EC50 | 18,340 mg/l | Daphnia | 48 h | Ceriodaphnia dubia | |
| Propane-1,2-diol 57-55-6 | EC50 | 24,200 mg/l | Algae | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Propane-1,2-diol 57-55-6 | NOEC | 15,000 mg/l | Algae | 14 d | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Propane-1,2-diol 57-55-6 | EC50 | > 1,000 mg/l | Bacteria | 3 h | activated sludge | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| α , α -dimethylbenzyl hydroperoxide 80-15-9 | LC50 | 3.9 mg/l | Fish | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| α , α -dimethylbenzyl hydroperoxide 80-15-9 | EC50 | 18.84 mg/l | Daphnia | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| α , α -dimethylbenzyl hydroperoxide 80-15-9 | EC50 | 3.1 mg/l | Algae | 72 h | Desmodesmus subspicatus (reported as Scenedesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| α , α -dimethylbenzyl hydroperoxide 80-15-9 | NOEC | 1 mg/l | Algae | 72 h | Desmodesmus subspicatus (reported as Scenedesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| α , α -dimethylbenzyl hydroperoxide 80-15-9 | EC10 | 70 mg/l | Bacteria | 30 min | not specified | not specified |
| maleic acid 110-16-7 | LC50 | > 245 mg/l | Fish | 48 h | Leuciscus idus | DIN 38412-15 |
| maleic acid 110-16-7 | EC50 | 42.81 mg/l | Daphnia | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| maleic acid 110-16-7 | EC50 | 74.35 mg/l | Algae | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| maleic acid 110-16-7 | EC10 | 11.8 mg/l | Algae | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| maleic acid 110-16-7 | EC10 | 44.6 mg/l | Bacteria | 18 h | Pseudomonas putida | DIN 38412, part 8 (Pseudomonas Zellvermehrungshe mm-Test) |
| methacrylic acid 79-41-4 | LC50 | 85 mg/l | Fish | 96 h | Salmo gairdneri (new name: Oncorhynchus mykiss) | EPA OTS 797.1400 (Fish Acute Toxicity Test) |
| methacrylic acid 79-41-4 | NOEC | 10 mg/l | Fish | 35 d | Danio rerio | OECD Guideline 210 (fish early life stage toxicity test) |
| methacrylic acid 79-41-4 | EC50 | > 130 mg/l | Daphnia | 48 h | Daphnia magna | EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids) |
| methacrylic acid 79-41-4 | NOEC | 8.2 mg/l | Algae | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methacrylic acid 79-41-4 | EC50 | 45 mg/l | Algae | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methacrylic acid 79-41-4 | EC10 | 100 mg/l | Bacteria | 17 h | Pseudomonas putida | DIN 38412, part 8 (Pseudomonas Zellvermehrungshe mm-Test) |

Persistence and degradability:

| Hazardous components CAS-No. | Result | Route of application | Degradability | Method |
|--|----------------------------|----------------------|----------------|--|
| Tetramethylene dimethacrylate 2082-81-7 | readily biodegradable | aerobic | 84 % | OECD Guideline 310 (Ready Biodegradability CO ₂ in Sealed Vessels (Headspace Test)) |
| 2,4,6-Triallyloxy-1,3,5-triazine 101-37-1 | | aerobic | 7 - 9 % | OECD Guideline 301 B (Ready Biodegradability: CO ₂ Evolution Test) |
| 2-[[[2,2-bis[[[1-oxoallyl]oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 94108-97-1 | | aerobic | 4 - 14 % | OECD Guideline 301 B (Ready Biodegradability: CO ₂ Evolution Test) |
| Ethene, homopolymer 9002-88-4 | not readily biodegradable. | aerobic | 1 % | ISO 10708 (BODIS-Test) |
| Propane-1,2-diol 57-55-6 | readily biodegradable | aerobic | > 81.7 - 100 % | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| α, α-dimethylbenzyl hydroperoxide 80-15-9 | not readily biodegradable. | aerobic | 3 % | OECD Guideline 301 B (Ready Biodegradability: CO ₂ Evolution Test) |
| maleic acid 110-16-7 | readily biodegradable | aerobic | 97.08 % | OECD Guideline 301 B (Ready Biodegradability: CO ₂ Evolution Test) |
| methacrylic acid 79-41-4 | readily biodegradable | aerobic | 86 % | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| methacrylic acid 79-41-4 | inherently biodegradable | aerobic | 100 % | OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test) |

Bioaccumulative potential / Mobility in soil:

| Hazardous components CAS-No. | LogPow | Bioconcentration factor (BCF) | Exposure time | Species | Temperature | Method |
|--|--------|-------------------------------|---------------|-------------|-------------|--|
| Tetramethylene dimethacrylate 2082-81-7 | 3.1 | | | | | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| 2,4,6-Triallyloxy-1,3,5-triazine 101-37-1 | 2.8 | | | | 20 °C | not specified |
| 2-[[[2,2-bis[[[1-oxoallyl]oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 94108-97-1 | 4.14 | | | | 30 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Propane-1,2-diol 57-55-6 | -1.07 | | | | 20.5 °C | EU Method A.8 (Partition Coefficient) |
| α, α-dimethylbenzyl hydroperoxide 80-15-9 | | 9.1 | | calculation | | OECD Guideline 305 (Bioconcentration: Flow-through Fish Test) |
| α, α-dimethylbenzyl hydroperoxide 80-15-9 | 1.6 | | | | 25 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| maleic acid 110-16-7 | -1.3 | | | | 20 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| Acetic acid, 2-phenylhydrazide 114-83-0 | 0.74 | | | | | not specified |
| methacrylic acid 79-41-4 | 0.93 | | | | 22 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |

SECTION 13. DISPOSAL CONSIDERATIONS

- Waste disposal of product:** Dispose of in accordance with local and national regulations.
- Disposal for uncleaned package:** Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

SECTION 14. TRANSPORT INFORMATION

Dangerous Goods information:

Land Transport:

Not classified as Dangerous Goods under the Land Transport Rule: Dangerous Goods 2005.

Marine transport IMDG:

Not dangerous goods

Air transport IATA:

Not dangerous goods

SECTION 15. REGULATORY INFORMATION

New Zealand regulatory information:

Classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO).

HSNO Approval Number: HSR002670

Site and Storage:

Refer to the site and storage requirements for this Group Standard.
Refer to the HSNO controls for approved hazardous substances.

NZIoC:

All components are listed or are exempt from listing on the New Zealand Inventory of Chemicals (NZIoC)

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| SECTION 16. OTHER INFORMATION |
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Abbreviations/acronyms: STEL - Short term exposure limit
TWA - Time weighted average
HSNO - Hazardous Substances and New Organisms
GHS: Globally Harmonized System
CAS: Chemical Abstracts Service
LD 50: Lethal Dose 50%
LC 50: Lethal Concentration 50%
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

Reason for issue: Reviewed SDS. Reissued with new date. involved chapters: 1 - 16

Date of previous issue: 10.06.2022

Disclaimer:

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