



Safety Data Sheet

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LOCTITE 640 R. C. 50ML EN

SDS No. : 150757

V001.7

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

Product name: LOCTITE 640 R. C. 50ML EN

Other means of identification: LOCTITE 640 R. C. 50ML EN

Product code: IDH848751

Recommended use of the chemical and restrictions on use

Intended use: Anaerobic Adhesive

Identification of manufacturer, importer or distributor

Importer: Henkel Malaysia Sdn Bhd 46th Floor, Menara TM, Jalan Pantai Baharu, 59200 Kuala Lumpur, Malaysia.
Phone :+ 603 22461000 Fax : + 60322461188

E-mail address of person responsible for Safety Data Sheet: ap-ua-psra.sea@henkel.com

Emergency information: FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call CHEMTREC: +1 703-741-5970

Section 2. Hazards identification

GHS Classification:

| <u>Hazard Class</u> | <u>Hazard Category</u> | <u>Target organ</u> |
|--|------------------------|------------------------------|
| Skin corrosion/irritation | Category 1A | |
| Serious eye damage/eye irritation | Category 1 | |
| Skin sensitizer | Category 1 | |
| Specific target organ toxicity - single exposure | Category 3 | respiratory tract irritation |
| Chronic hazards to the aquatic environment | Category 3 | |

GHS label elements:

Hazard pictogram:



Signal word:

Danger

Hazard statement: H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Precaution:

Prevention: P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response: P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340+P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.
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 attention.
P363 Wash contaminated clothing before reuse.

Storage: P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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.

Section 3. Composition / information on ingredients

Substance or Mixture:
Mixture

Declaration of hazardous chemical:

| Hazard component CAS-No. | Content | GHS Classification |
|---|----------|---|
| 2,2'-Ethylendioxydiethyl dimethacrylate 109-16-0 | 10- 30 % | Skin sensitizer 1 H317 |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | 1- 10 % | Serious eye damage/eye irritation 2 H319 Skin sensitizer 1 H317 |
| Acrylic acid 79-10-7 | 1- 10 % | Flammable liquids 3 H226 Acute toxicity 4; Oral H302 Acute toxicity 4; Inhalation H332 Acute toxicity 4; Dermal H312 Skin corrosion/irritation 1A H314 Specific target organ toxicity - single exposure 3 H335 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 2 H411 |
| Cumene hydroperoxide 80-15-9 | 1- 10 % | Organic peroxides E H242 Acute toxicity 4; Oral H302 Acute toxicity 3; Inhalation H331 Acute toxicity 4; Dermal H312 Skin corrosion/irritation 1B H314 Specific target organ toxicity - repeated exposure 2 H373 Chronic hazards to the aquatic environment 2 H411 |
| Methacrylic acid 79-41-4 | 0.1- 1 % | Acute toxicity 4; Oral H302 Acute toxicity 4; Inhalation H332 Acute toxicity 3; Dermal H311 Skin corrosion/irritation 1A H314 Serious eye damage/eye irritation 1 H318 Specific target organ toxicity - single exposure 3 H335 |

Section 4. First aid measures

| | |
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| 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. Get medical attention. |
| 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. |
| Symptoms/effects, acute and delayed: | Acrylic acid: Respiratory disorders. Lung disease. Eye, skin, and respiratory disorders. |
| Indication of immediate medical attention and special treatment needed: | See section: Description of first aid measures |

Section 5. Fire fighting measures

| | |
|---|---|
| Suitable extinguishing media: | Water spray (fog), foam, dry chemical or carbon dioxide. |
| Specific hazards arising from the chemical: | Uncontrolled polymerization may occur at high temperatures resulting in explosions or rupture of storage containers. |
| Special protection equipment and precautions for firefighters: | Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray. |
| Hazardous combustion products: | Oxides of carbon. Oxides of sulfur. Oxides of nitrogen. Irritating organic vapours. |

Section 6. Accidental release measures

| | |
|-----------------------------------|---|
| Environmental precautions: | Do not allow product to enter sewer or waterways. |
| Clean-up methods: | Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal. |

Section 7. Handling and storage

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| 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. See advice in section 8 |
|------------------|--|

Storage: Store below 100°F (38°C).
Store in tightly closed containers. In a cool/well-ventilated area.
Keep away from heat and direct sunlight.

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

| | | |
|-------------------------|-------------------------|--|
| ACRYLIC ACID 79-10-7 | Value type | Time Weighted Average (TWA): |
| | ppm | 2 |
| | Remarks | ACGIH |
| ACRYLIC ACID 79-10-7 | Value type | Time Weighted Average (TWA): |
| | ppm | 2 |
| | mg/m³ | 5.9 |
| | Remarks | MY OEL |
| ACRYLIC ACID 79-10-7 | Value type | Skin designation: |
| | Remarks | ACGIH Can be absorbed through the skin. |
| ACRYLIC ACID 79-10-7 | Value type | Skin designation: |
| | Remarks | MY OEL Can be absorbed through the skin. |

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye protection: Safety goggles or safety glasses with side shields.
Full face protection should be used if the potential for splashing or spraying of product exists.

Body protection: Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.
Neoprene gloves.
Butyl rubber gloves.
Natural rubber gloves.

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

General protection and hygiene measures: Eyewash fountains and emergency showers are required.

Hygienic measures: Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working.

Section 9. Physical and chemical properties

Appearance: green
liquid

Odor: Sharp, irritating

Odor threshold (CA): No data available.

pH: Not applicable

Melting point / freezing point: No data available.

Specific gravity: 1.12

Boiling point: > 149 °C (> 300.2 °F)

Flash point: > 93.3 °C (> 199.94 °F)

| | |
|--|--------------------|
| (Tagliabue closed cup) | |
| Evaporation rate: | Not available. |
| Flammability (solid, gas): | No data available. |
| Lower explosive limit: | No data available. |
| Upper explosive limit: | No data available. |
| Vapor pressure: (; 27 °C (80.6 °F)) | < 10 mm hg |
| Vapor density: | Not available. |
| Density: | No data available. |
| Solubility: | No data available. |
| Partition coefficient: n-octanol/water: | No data available. |
| Auto ignition: | Not available. |
| Decomposition temperature: | No data available. |
| Viscosity: | No data available. |
| VOC content: | No data available. |

Section 10. Stability and reactivity

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|--|--|
| Reactivity/Incompatible materials: | Strong oxidizing agents. |
| Chemical stability: | Stable under recommended storage conditions. |
| Possibility of hazardous reactions: | None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials. |
| Conditions to avoid: | Elevated temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials. |
| Hazardous decomposition products: | Oxides of carbon. Oxides of sulfur. Oxides of nitrogen. Irritating organic vapours. |

Section 11. Toxicological information

| | |
|-----------------------------|--|
| Oral toxicity: | Acute toxicity estimate (ATE) : > 2,000 mg/kg Method: Calculation method |
| Inhalative toxicity: | Acute toxicity estimate (ATE) : > 20 mg/l Exposure time: 4 h Test atmosphere: Vapor. Method: Calculation method |
| Dermal toxicity: | Acute toxicity estimate (ATE) : > 2,000 mg/kg Method: Calculation method |

Health Effects:

Ingestion: May cause gastrointestinal tract irritation if swallowed.
 Skin: Corrosive to skin.
 Causes skin burns.
 May cause allergic skin reaction.
 Eyes: Causes serious eye damage.
 Inhalation: Inhalation of vapors or mists of the product may be irritating to the respiratory system.
Route of exposure: Skin, Inhalation, Eyes
 Ingestion
 Symptoms of Overexposure: SKIN: Rash, Urticaria.
 Causes burns.
 RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

Acute oral toxicity:

| | | |
|---|------------|--|
| 2,2'-Ethylendioxydiethyl dimethacrylate 109-16-0 | Value type | LD50 |
| | Value | 10,837 mg/kg |
| | Species | rat |
| | Method | not specified |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Value type | LD50 |
| | Value | > 2,000 mg/kg |
| | Species | rat |
| | Method | OECD Guideline 401 (Acute Oral Toxicity) |
| Acrylic acid 79-10-7 | Value type | LD50 |
| | Value | 1,500 mg/kg |
| | Species | rat |
| | Method | BASF Test |
| Cumene hydroperoxide 80-15-9 | Value type | LD50 |
| | Value | 550 mg/kg |
| | Species | rat |
| | Method | not specified |
| Methacrylic acid 79-41-4 | Value type | LD50 |
| | Value | 1,320 mg/kg |
| | Species | rat |
| | Method | OECD Guideline 401 (Acute Oral Toxicity) |

Acute inhalative toxicity:

| | | |
|-----------------------------|---------------|--|
| Acrylic acid 79-10-7 | Value type | LC50 |
| | Value | > 5.1 mg/l |
| | Exposure time | 4 h |
| | Species | rat |
| Acrylic acid 79-10-7 | Method | OECD Guideline 403 (Acute Inhalation Toxicity) |
| | Value type | Acute toxicity estimate (ATE) |
| | Value | 11 mg/l |
| | Exposure time | |
| Methacrylic acid 79-41-4 | Species | |
| | Method | Expert judgement |
| | Value type | LC50 |
| | Value | > 3.6 mg/l |
| | Exposure time | 4 h |
| | Species | rat |
| | Method | OECD Guideline 403 (Acute Inhalation Toxicity) |

Acute dermal toxicity:

| | | |
|--|------------|--|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | Value type | LD50 |
| | Value | > 2,000 mg/kg |
| | Species | mouse |
| | Method | not specified |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Value type | LD50 |
| | Value | > 5,000 mg/kg |
| | Species | rabbit |
| | Method | not specified |
| Acrylic acid 79-10-7 | Value type | Acute toxicity estimate (ATE) |
| | Value | 1,100 mg/kg |
| | Species | |
| | Method | Expert judgement |
| Acrylic acid 79-10-7 | Value type | LD50 |
| | Value | > 2,000 mg/kg |
| | Species | rabbit |
| | Method | OECD Guideline 402 (Acute Dermal Toxicity) |
| Cumene hydroperoxide 80-15-9 | Value type | LD50 |
| | Value | 1,200 - 1,520 mg/kg |
| | Species | |
| | Method | not specified |
| Methacrylic acid 79-41-4 | Value type | LD50 |
| | Value | 500 - 1,000 mg/kg |
| | Species | rabbit |
| | Method | Dermal Toxicity Screening |

Skin corrosion/irritation:

| | | |
|--|---------------|--|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | Result | not irritating |
| | Exposure time | 24 h |
| | Species | rabbit |
| | Method | Draize Test |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Result | not irritating |
| | Exposure time | 24 h |
| | Species | rabbit |
| | Method | Draize Test |
| Acrylic acid 79-10-7 | Result | highly corrosive |
| | Exposure time | 3 min |
| | Species | rabbit |
| | Method | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Cumene hydroperoxide 80-15-9 | Result | corrosive |
| | Exposure time | |
| | Species | rabbit |
| | Method | Draize Test |
| Methacrylic acid 79-41-4 | Result | corrosive |
| | Exposure time | 3 min |
| | Species | rabbit |
| | Method | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

Serious eye damage/irritation:

| | | |
|--|---------------|---|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | Result | not irritating |
| | Exposure time | |
| | Species | rabbit |
| | Method | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Acrylic acid 79-10-7 | Result | corrosive |
| | Exposure time | 21 d |
| | Species | rabbit |
| | Method | BASF Test |
| Methacrylic acid 79-41-4 | Result | corrosive |
| | Exposure time | |
| | Species | rabbit |
| | Method | Draize Test |

Respiratory or skin sensitization:

| | | |
|---|-----------|---|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | Result | sensitising |
| | Test type | Mouse local lymphnode assay (LLNA) |
| | Species | mouse |
| | Method | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| Acrylic acid 79-10-7 | Result | not sensitising |
| | Test type | Skin painting test |
| | Species | guinea pig |
| | Method | not specified |
| Methacrylic acid 79-41-4 | Result | not sensitising |
| | Test type | Buehler test |
| | Species | guinea pig |
| | Method | OECD Guideline 406 (Skin Sensitisation) |

Germ cell mutagenicity:

| | | |
|---|---|---|
| 2,2'-Ethylendioxydiethyl dimethacrylate 109-16-0 | Result | negative |
| | Type of study / Route of administration | mammalian cell gene mutation assay |
| | Metabolic activation / Exposure time | with and without |
| | Method | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| 2,2'-Ethylendioxydiethyl dimethacrylate 109-16-0 | Result | negative |
| | Type of study / Route of administration | bacterial reverse mutation assay (e.g Ames test) |
| | Metabolic activation / Exposure time | with and without |
| | Method | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| 2,2'-Ethylendioxydiethyl dimethacrylate 109-16-0 | Result | negative |
| | Type of study / Route of administration | in vitro mammalian cell micronucleus test |
| | Metabolic activation / Exposure time | with and without |
| | Method | OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test) |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Result | negative |
| | Type of study / Route of administration | bacterial reverse mutation assay (e.g Ames test) |
| | Metabolic activation / Exposure time | with and without |
| | Method | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Result | negative |
| | Type of study / Route of administration | mammalian cell gene mutation assay |
| | Metabolic activation / Exposure time | with and without |
| | Method | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Result | negative |
| | Type of study / Route of administration | oral: gavage |
| | Metabolic activation / Exposure time | |
| | Species | rat |
| Acrylic acid 79-10-7 | Result | negative |
| | Type of study / Route of administration | mammalian cell gene mutation assay |
| | Metabolic activation / Exposure time | with and without |
| | Method | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| Acrylic acid 79-10-7 | Result | negative |
| | Type of study / Route of administration | DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro |
| | Metabolic activation / Exposure time | without |
| | Method | OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro) |
| Acrylic acid 79-10-7 | Result | negative |
| | Type of study / Route of administration | oral: gavage |
| | Metabolic activation / Exposure time | |
| | Species | rat |
| Cumene hydroperoxide 80-15-9 | Result | positive |
| | Type of study / Route of administration | bacterial reverse mutation assay (e.g Ames test) |
| | Metabolic activation / Exposure time | without |
| | Method | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Cumene hydroperoxide 80-15-9 | Result | negative |
| | Type of study / Route of administration | dermal |
| | Metabolic activation / Exposure time | |
| | Species | mouse |
| Methacrylic acid 79-41-4 | Result | negative |
| | Type of study / Route of administration | bacterial reverse mutation assay (e.g Ames test) |
| | Metabolic activation / Exposure time | with and without |
| | Method | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Methacrylic acid 79-41-4 | Result | negative |
| | Type of study / Route of administration | inhalation |
| | Metabolic activation / Exposure time | |
| | Species | mouse |
| Methacrylic acid 79-41-4 | Result | negative |
| | Type of study / Route of administration | inhalation |
| | Metabolic activation / Exposure time | |
| | Method | OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test) |

Repeated dose toxicity:

| | | |
|---|--|--|
| 2,2'-Ethylendioxydiethyl dimethacrylate 109-16-0 | Result | NOAEL=1,000 mg/kg |
| | Route of application | oral: gavage |
| | Exposure time / Frequency of treatment | daily |
| | Species | rat |
| | Method | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Result | NOAEL=300 mg/kg |
| | Route of application | oral: gavage |
| | Exposure time / Frequency of treatment | |
| | Species | rat |
| | Method | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Cumene hydroperoxide 80-15-9 | Result | |
| | Route of application | inhalation: aerosol |
| | Exposure time / Frequency of treatment | 6 h/d5 d/w |
| | Species | rat |
| | Method | not specified |

Section 12. Ecological information

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

Ecotoxicity: Harmful to aquatic life with long lasting effects., Do not empty into drains / surface water / ground water.

Toxicity:

| | | |
|---|----------------------|--|
| 2,2'-Ethylendioxydiethyl dimethacrylate 109-16-0 | Value type | LC50 |
| | Value | 16.4 mg/l |
| | Acute Toxicity Study | Fish |
| | Exposure time | 96 h |
| | Species | Danio rerio |
| | Method | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 2,2'-Ethylendioxydiethyl dimethacrylate 109-16-0 | Value type | EC50 |
| | Value | > 100 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Pseudokirchneriella subcapitata |
| | Method | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| | Value type | NOEC |
| | Value | 18.6 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Pseudokirchneriella subcapitata |
| | Method | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Value type | LC50 |
| | Value | 493 mg/l |
| | Acute Toxicity Study | Fish |
| | Exposure time | 48 h |
| | Species | Leuciscus idus melanotus |
| | Method | DIN 38412-15 |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Value type | EC50 |
| | Value | > 143 mg/l |
| | Acute Toxicity Study | Daphnia |
| | Exposure time | 48 h |
| | Species | Daphnia magna |
| | Method | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Value type | EC50 |
| | Value | > 97.2 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Pseudokirchneriella subcapitata |
| | Method | OECD Guideline 201 (Alga, Growth Inhibition Test) |

| | | |
|---|----------------------|--|
| | Value type | NOEC |
| | Value | > 97.2 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Pseudokirchneriella subcapitata |
| | Method | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Value type | EC10 |
| | Value | 1,140 mg/l |
| | Acute Toxicity Study | Bacteria |
| | Exposure time | 16 h |
| | Species | |
| | Method | not specified |
| Acrylic acid 79-10-7 | Value type | LC50 |
| | Value | 27 mg/l |
| | Acute Toxicity Study | Fish |
| | Exposure time | 96 h |
| | Species | Salmo gairdneri (new name: Oncorhynchus mykiss) |
| | Method | EPA OTS 797.1400 (Fish Acute Toxicity Test) |
| Acrylic acid 79-10-7 | Value type | EC50 |
| | Value | 95 mg/l |
| | Acute Toxicity Study | Daphnia |
| | Exposure time | 48 h |
| | Species | Daphnia magna |
| | Method | EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids) |
| Acrylic acid 79-10-7 | Value type | EC10 |
| | Value | 0.03 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) |
| | Method | EU Method C.3 (Algal Inhibition test) |
| | Value type | EC50 |
| | Value | 0.13 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) |
| | Method | EU Method C.3 (Algal Inhibition test) |
| Acrylic acid 79-10-7 | Value type | EC20 |
| | Value | 900 mg/l |
| | Acute Toxicity Study | Bacteria |
| | Exposure time | 30 min |
| | Species | activated sludge, domestic |
| | Method | ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge) |
| Cumene hydroperoxide 80-15-9 | Value type | LC50 |
| | Value | 3.9 mg/l |
| | Acute Toxicity Study | Fish |
| | Exposure time | 96 h |
| | Species | Oncorhynchus mykiss |
| | Method | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Cumene hydroperoxide 80-15-9 | Value type | EC 50 |
| | Value | 7 mg/l |
| | Acute Toxicity Study | Daphnia |
| | Exposure time | 24 h |
| | Species | Water flea (Daphnia magna) |
| | Method | |
| | Value type | EC50 |
| | Value | 18 mg/l |
| | Acute Toxicity Study | Daphnia |
| | Exposure time | 48 h |
| | Species | Daphnia magna |
| | Method | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Cumene hydroperoxide 80-15-9 | Value type | ErC50 |
| | Value | 3.1 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Pseudokirchneriella subcapitata |
| | Method | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Cumene hydroperoxide 80-15-9 | Value type | EC10 |
| | Value | 70 mg/l |

| | | |
|-----------------------------|----------------------|--|
| | Acute Toxicity Study | Bacteria |
| | Exposure time | 30 min |
| | Species | |
| | Method | not specified |
| Methacrylic acid 79-41-4 | Value type | LC50 |
| | Value | 85 mg/l |
| | Acute Toxicity Study | Fish |
| | Exposure time | 96 h |
| | Species | Salmo gairdneri (new name: Oncorhynchus mykiss) |
| | Method | EPA OTS 797.1400 (Fish Acute Toxicity Test) |
| Methacrylic acid 79-41-4 | Value type | EC50 |
| | Value | > 130 mg/l |
| | Acute Toxicity Study | Daphnia |
| | Exposure time | 48 h |
| | Species | Daphnia magna |
| | Method | EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids) |
| Methacrylic acid 79-41-4 | Value type | NOEC |
| | Value | 8.2 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) |
| | Method | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| | Value type | EC50 |
| | Value | 45 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) |
| | Method | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Methacrylic acid 79-41-4 | Value type | EC10 |
| | Value | 100 mg/l |
| | Acute Toxicity Study | Bacteria |
| | Exposure time | 17 h |
| | Species | |
| | Method | not specified |

Persistence and degradability:

| | | |
|--|----------------------|---|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | Result | readily biodegradable |
| | Route of application | aerobic |
| | Degradability | 85 % |
| | Method | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Result | readily biodegradable |
| | Route of application | aerobic |
| | Degradability | 94.2 % |
| | Method | OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test) |
| Acrylic acid 79-10-7 | Result | inherently biodegradable |
| | Route of application | aerobic |
| | Degradability | 100 % |
| | Method | OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test) |
| | Result | readily biodegradable |
| | Route of application | aerobic |
| | Degradability | 81 % |
| | Method | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| Cumene hydroperoxide 80-15-9 | Result | |
| | Route of application | no data |
| | Degradability | 0 % |
| | Method | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| Methacrylic acid 79-41-4 | Result | inherently biodegradable |
| | Route of application | aerobic |
| | Degradability | 100 % |
| | Method | OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test) |
| | Result | readily biodegradable |
| | Route of application | aerobic |
| | Degradability | 86 % |
| | Method | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |

Bioaccumulative potential / Mobility in soil:

| | | |
|---|-------------------------------|--|
| 2,2'-Ethyleneedioxydiethyl dimethacrylate 109-16-0 | LogPow | 2.3 |
| | Temperature | |
| | Method | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | LogPow | 0.97 |
| | Temperature | 20 °C |
| | Method | not specified |
| Acrylic acid 79-10-7 | Bioconcentration factor (BCF) | 3.16 |
| | Exposure time | |
| | Species | |
| | Temperature | |
| | Method | QSAR (Quantitative Structure Activity Relationship) |
| Acrylic acid 79-10-7 | LogPow | 0.46 |
| | Temperature | 25 °C |
| | Method | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| Cumene hydroperoxide 80-15-9 | Bioconcentration factor (BCF) | 9.1 |
| | Exposure time | |
| | Species | calculation |
| | Temperature | |
| | Method | OECD Guideline 305 (Bioconcentration: Flow-through Fish Test) |
| Cumene hydroperoxide 80-15-9 | LogPow | 2.16 |
| | Temperature | |
| | Method | not specified |
| Methacrylic acid 79-41-4 | LogPow | 0.93 |
| | Temperature | 22 °C |
| | Method | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |

Section 13. Disposal considerations

Product

Method of disposal: Dispose of in accordance with local and national regulations.

Packaging

Disposal of uncleaned packages: Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

Section 14. Transport information

Road transport ADR:

| | |
|-----------------------|--|
| Class: | 8 |
| Packing group: | III |
| Classification code: | C9 |
| Hazard ident. number: | 80 |
| UN no.: | 1760 |
| Label: | 8 |
| Technical name: | CORROSIVE LIQUID, N.O.S. (Acrylic acid,Cumene hydroperoxide) |

Railroad transport RID:

| | |
|-----------------------|--|
| Class: | 8 |
| Packing group: | III |
| Classification code: | C9 |
| Hazard ident. number: | 80 |
| UN no.: | 1760 |
| Label: | 8 |
| Technical name: | CORROSIVE LIQUID, N.O.S. (Acrylic acid,Cumene hydroperoxide) |

Inland water transport ADN:

| | |
|-----------------------|--|
| Class: | 8 |
| Packing group: | III |
| Classification code: | C9 |
| Hazard ident. number: | |
| UN no.: | 1760 |
| Label: | 8 |
| Technical name: | CORROSIVE LIQUID, N.O.S. (Acrylic acid,Cumene hydroperoxide) |

Marine transport IMDG:

| | |
|-----------------------|--|
| Class: | 8 |
| Packing group: | III |
| UN no.: | 1760 |
| Label: | 8 |
| EmS: | F-A ,S-B |
| Seawater pollutant: | - |
| Proper shipping name: | CORROSIVE LIQUID, N.O.S. (Acrylic acid,Cumene hydroperoxide) |

Air transport IATA:

| | |
|-------------------------------------|--|
| Class: | 8 |
| Packing group: | III |
| Packaging instructions (passenger): | 852 |
| Packaging instructions (cargo): | 856 |
| UN no.: | 1760 |
| Label: | 8 |
| Proper shipping name: | Corrosive liquid, n.o.s. (Acrylic acid,Cumene hydroperoxide) |

Section 15. Regulatory information

Regulatory Information: Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 [P.U.(A) 310/213]
Industry Code of Practice on Chemicals Classification and Hazard Communication

Global inventory status:

| Regulatory list | Notification |
|-----------------|--------------|
| TSCA | yes |
| PICCS (PH) | yes |
| IECSC | yes |

Section 16. Other information

Disclaimer: 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.

