# Safety Data Sheet



LOCTITE ABLESTIK 84-1LMISR4

SDS No. : 374132
V001.19
Revision: 10.01.2025
printing date: 04.11.2026

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

**Product name:**
LOCTITE ABLESTIK 84-1LMISR4

**Other means of identification:**
LOCTITE ABLESTIK 84-1LMISR4

**Product code:**
IDH1493498

**Recommended use of the chemical and restrictions on use**

**Intended use:**
Die attach adhesive

**Manufacturer/Importer/Distributor Representative Company**

Henkel Thailand Ltd. The Offices at Centralworld,
35th Floor, 999/9 Rama 1 Rd.,
Kwang Patumwan, Khet Patumwan,
10330 Bangkok

Thailand

Phone: +66 (2209) 8000
Fax-no.: +66 (2209) 8008

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

**Emergency Telephone for Chemical Accidents:**
FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call: +662 209 8008

## Section 2. Hazards identification

**GHS Classification:**

| Hazard Class | Hazard Category |
|---|---|
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 1 |
| Skin sensitizer | Category 1 |
| Toxic to reproduction | Category 1B |
| Acute hazards to the aquatic environment | Category 1 |
| Chronic hazards to the aquatic environment | Category 1 |

**GHS label elements:**

**Hazard pictogram:**



**Signal word:**
Danger

**Hazard statement:**
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H360 May damage fertility or the unborn child.
H410 Very toxic to aquatic life with long lasting effects.

**Precaution:**

**Prevention:**
P201 Obtain special instructions before use.
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:**
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

**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 |
|---|---|---|
| Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment<br>7440-22-4 | 60- 100 % | Acute hazards to the aquatic environment 1<br>H400<br>Chronic hazards to the aquatic environment 1<br>H410 |
| Reaction mass bisphenol-F-(epichlorhydrin)<br>9003-36-5 | 10- 30 % | Skin corrosion/irritation 2<br>H315<br>Skin sensitizer 1A<br>H317<br>Acute hazards to the aquatic environment 2<br>H401<br>Chronic hazards to the aquatic environment 2<br>H411 |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | 1- 10 % | Acute toxicity 4; Oral<br>H302<br>Acute toxicity 4; Inhalation<br>H332<br>Acute toxicity 4; Dermal<br>H312<br>Skin corrosion/irritation 2<br>H315<br>Serious eye damage/eye irritation 1<br>H318<br>Skin sensitizer 1<br>H317<br>Toxic to reproduction 1B<br>H360<br>Acute hazards to the aquatic environment 3<br>H402 |
| dapsone<br>80-08-0 | 1- 10 % | Acute toxicity 3; Oral<br>H301<br>Toxic to reproduction 1B<br>H360<br>Specific target organ toxicity - single exposure 2; Oral<br>H371<br>Specific target organ toxicity - repeated exposure 2; Oral<br>H373<br>Acute hazards to the aquatic environment 2<br>H401<br>Chronic hazards to the aquatic environment 2<br>H411 |

## Section 4. First aid measures

**Inhalation:**
Should not be a problem as product is of low volatility. However, if feeling unwell remove patient to fresh air.

**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.

## Section 5. Fire fighting measures

**Suitable extinguishing media:**
water, carbon dioxide, foam, powder

**Improper extinguishing media:**
High pressure waterjet

**Specific hazards arising from the chemical:**
In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.
In case of fire, keep containers cool with water spray.

**Special protection equipment and precautions for firefighters:**
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

## Section 6. Accidental release measures

**Personal precautions:**
Avoid contact with skin and eyes.
Wear protective equipment.

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

**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

**Handling:**
Avoid skin and eye contact.
See advice in section 8

**Storage:**
Ensure good ventilation/extraction.
Keep container tightly sealed.
Protect from direct sunlight.
Refer to Technical Data Sheet.

## Section 8. Exposure controls / personal protection

**Components with specific control parameters for workplace:**

| | | |
|---|---|---|
| Silver, metal, dust and fume<br>7440-22-4 | **Value type** | Time Weighted Average (TWA): |
| | **mg/m³** | 0.1 |
| | **Remarks** | ACGIH |

**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.

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

**Engineering controls:**
Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

**General protection and hygiene measures:**
The workplace should be equipped with an emergency shower and eye-rinsing facility.

**Hygienic measures:**
Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.
Take off contaminated clothing and wash before reuse.

## Section 9. Physical and chemical properties

| | |
|---|---|
| **Appearance:** | Silver<br>liquid, paste |
| **Odor:** | mild, Of hydrocarbons |
| **Odor threshold (CA):** | No data available. |
| **pH:** | Product is non-soluble (in water)., Not applicable |
| **Melting point / freezing point:** | Not applicable, Product is a liquid |
| **Specific gravity:** | 3.5 |
| **Boiling point:** | No data available. |
| **Flash point:** | > 93 °C (> 199.4 °F) |
| **Evaporation rate:** | No data available. |
| **Flammability (solid, gas):** | No data available. |
| **Lower explosive limit:** | No data available. |
| **Upper explosive limit:** | No data available. |

| | |
|---|---|
| **Vapor pressure:** (; 20 °C (68 °F)) | < 0.1 hPa |
| **Vapor density:** | Heavier than air |
| **Density:** | 3.5 g/cm3 |
| **Solubility:** | Insoluble |
| **Partition coefficient: n-octanol/water:** | No data available. |
| **Auto ignition:** | Not available. |
| **Decomposition temperature:** | > 200 °C |
| **Viscosity:** | 8,000.00 mPa.s (; Method: ;; viscosity, Brookfield) |
| **VOC content:** (2010/75/EC) | < 3 % |

## Section 10. Stability and reactivity

**Reactivity/Incompatible materials:**
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.
**Chemical stability:**
Stable under recommended storage conditions.
**Possibility of hazardous reactions:**
Rapid polymerization may generate excessive heat and pressure.
**Conditions to avoid:**
No decomposition if stored and applied as directed.
**Hazardous decomposition products:**
Hydrocarbons
carbon oxides.
nitrogen oxides

## Section 11. Toxicological information

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

**Health Effects:**

Skin: Causes skin irritation.
May cause an allergic skin reaction.
Eyes: Causes serious eye damage.
Symptoms of Overexposure**:** None known.

**Acute oral toxicity:**

| | | |
|---|---|---|
| Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment<br>7440-22-4 | Value type | LD50 |
| | Value | > 2,000 mg/kg |
| | Species | rat |
| | Method | OECD Guideline 401 (Acute Oral Toxicity) |
| Reaction mass bisphenol-F-(epichlorhydrin)<br>9003-36-5 | Value type | LD50 |
| | Value | > 5,000 mg/kg |
| | Species | rat |
| | Method | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Value type | LD50 |
| | Value | 1,118 mg/kg |
| | Species | rat |
| | Method | OECD Guideline 401 (Acute Oral Toxicity) |
| dapsone<br>80-08-0 | Value type | Acute toxicity estimate (ATE) |
| | Value | 250 mg/kg |
| | Species | |
| | Method | Expert judgement |

**Acute inhalative toxicity:**

| | | |
|---|---|---|
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Value type | Acute toxicity estimate (ATE) |
| | Value | 11.01 mg/l |
| | Exposure time | 4 h |
| | Species | |
| | Method | Expert judgement |

**Acute dermal toxicity:**

| | | |
|---|---|---|
| Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment<br>7440-22-4 | Value type | LD50 |
| | Value | > 2,000 mg/kg |
| | Species | rat |
| | Method | OECD Guideline 402 (Acute Dermal Toxicity) |
| Reaction mass bisphenol-F-(epichlorhydrin)<br>9003-36-5 | Value type | LD50 |
| | Value | > 2,000 mg/kg |
| | Species | rat |
| | Method | equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Value type | LD50 |
| | Value | 1,130 mg/kg |
| | Species | rabbit |
| | Method | not specified |
| dapsone<br>80-08-0 | Value type | LD50 |
| | Value | > 2,000 mg/kg |
| | Species | rabbit |
| | Method | EPA OPP 81-2 (Acute Dermal Toxicity) |

**Skin corrosion/irritation:**

| | | |
|---|---|---|
| Reaction mass bisphenol-F-(epichlorhydrin)<br>9003-36-5 | Result | irritating |
| | Exposure time | 4 h |
| | Species | rabbit |
| | Method | equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| dapsone<br>80-08-0 | Result | not irritating |
| | Exposure time | 4 h |
| | Species | rabbit |
| | Method | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

**Serious eye damage/irritation:**

| | | |
|---|---|---|
| Reaction mass bisphenol-F-(epichlorhydrin)<br>9003-36-5 | Result | not irritating |
| | Exposure time | |
| | Species | rabbit |
| | Method | equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Result | Category 1 (irreversible effects on the eye) |
| | Exposure time | |
| | Species | rabbit |
| | Method | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| dapsone<br>80-08-0 | Result | not irritating |
| | Exposure time | |
| | Species | Bovine, cornea, in vitro test |
| | Method | OECD Guideline 437 (BCOP) |

**Respiratory or skin sensitization:**

| | | |
|---|---|---|
| Reaction mass bisphenol-F-(epichlorhydrin)<br>9003-36-5 | Result | Sub-Category 1A (sensitising) |
| | Test type | Mouse local lymphnode assay (LLNA) |
| | Species | mouse |
| | Method | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Result | sensitising |
| | Test type | Guinea pig maximisation test |
| | Species | guinea pig |
| | Method | OECD Guideline 406 (Skin Sensitisation) |
| dapsone<br>80-08-0 | Result | not sensitising |
| | Test type | Mouse local lymphnode assay (LLNA) |
| | Species | mouse |
| | Method | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |

**Germ cell mutagenicity:**

| | | |
|---|---|---|
| Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment<br>7440-22-4 | 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) |
| Reaction mass bisphenol-F-(epichlorhydrin)<br>9003-36-5 | Result | positive |
| | 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) |
| Reaction mass bisphenol-F-(epichlorhydrin)<br>9003-36-5 | Result | negative |
| | Type of study / Route of administration | oral: gavage |
| | Metabolic activation / Exposure time | |
| | Species | mouse |
| | Method | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) |
| Reaction mass bisphenol-F-(epichlorhydrin)<br>9003-36-5 | Result | negative |
| | Type of study / Route of administration | oral: gavage |
| | Metabolic activation / Exposure time | |
| | Species | rat |
| | Method | OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Result | positive |
| | 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) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Result | positive |
| | Type of study / Route of administration | in vitro mammalian chromosome aberration test |
| | Metabolic activation / Exposure time | with and without |
| | Method | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Result | positive |
| | 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) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Result | negative |
| | Type of study / Route of administration | oral: gavage |
| | Metabolic activation / Exposure time | |
| | Species | mouse |
| | Method | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) |
| dapsone<br>80-08-0 | 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) |
| dapsone<br>80-08-0 | 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) |
| dapsone<br>80-08-0 | Result | positive |
| | Type of study / Route of administration | in vitro mammalian chromosome aberration test |
| | Metabolic activation / Exposure time | without |
| | Method | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| dapsone<br>80-08-0 | Result | negative |
| | Type of study / Route of administration | oral: gavage |
| | Metabolic activation / Exposure time | |
| | Species | mouse |
| | Method | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) |

**Repeated dose toxicity:**

| | | |
|---|---|---|
| Reaction mass bisphenol-F-(epichlorhydrin)<br>9003-36-5 | Result | NOAEL=250 mg/kg |
| | Route of application | oral: gavage |
| | Exposure time / Frequency of treatment | 13 wdaily |
| | Species | rat |
| | Method | OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Result | NOAEL=200 mg/kg |
| | Route of application | oral: gavage |
| | Exposure time / Frequency of treatment | 28 ddaily |
| | Species | rat |
| | Method | OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents) |
| dapsone<br>80-08-0 | Result | NOAEL=3 mg/kg |
| | Route of application | oral: gavage |
| | Exposure time / Frequency of treatment | 90 ddaily |
| | Species | rat |
| | Method | equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |

## Section 12. Ecological information

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

**Ecotoxicity:** H410 Very toxic to aquatic life with long lasting effects.

**Toxicity:**

| | | |
|---|---|---|
| Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment<br>7440-22-4 | Value type | LC50 |
| | Value | 0.0012 mg/l |
| | Acute Toxicity Study | Fish |
| | Exposure time | 96 h |
| | Species | Pimephales promelas |
| | Method | other guideline: |
| | Value type | EC10 |
| | Value | 0.00019 mg/l |
| | Acute Toxicity Study | Fish |
| | Exposure time | 217 d |
| | Species | Salmo trutta |
| | Method | OECD Guideline 210 (fish early lite stage toxicity test) |
| Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment<br>7440-22-4 | Value type | EC50 |
| | Value | 0.00022 mg/l |
| | Acute Toxicity Study | Daphnia |
| | Exposure time | 48 h |
| | Species | Daphnia magna |
| | Method | other guideline: |
| Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment<br>7440-22-4 | Value type | EC10 |
| | Value | 0.00016 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 15 d |
| | Species | other: |
| | Method | other guideline: |
| Reaction mass bisphenol-F-(epichlorhydrin)<br>9003-36-5 | Value type | LC50 |
| | Value | 5.7 mg/l |
| | Acute Toxicity Study | Fish |
| | Exposure time | 96 h |
| | Species | Leuciscus idus |
| | Method | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Reaction mass bisphenol-F-(epichlorhydrin)<br>9003-36-5 | Value type | EC50 |
| | Value | 2.55 mg/l |
| | Acute Toxicity Study | Daphnia |
| | Exposure time | 48 h |

| | | |
|---|---|---|
| | Species | Daphnia magna |
| | Method | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Reaction mass bisphenol-F-(epichlorhydrin) 9003-36-5 | Value type | EC50 |
| | Value | 1.8 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Pseudokirchneriella subcapitata |
| | Method | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Reaction mass bisphenol-F-(epichlorhydrin) 9003-36-5 | Value type | IC50 |
| | Value | > 100 mg/l |
| | Acute Toxicity Study | Bacteria |
| | Exposure time | 3 h |
| | Species | activated sludge, industrial |
| | Method | other guideline: |
| 1,4-bis(2,3 epoxypropoxy)butane 2425-79-8 | Value type | LC50 |
| | Value | 19.8 mg/l |
| | Acute Toxicity Study | Fish |
| | Exposure time | 96 h |
| | Species | Danio rerio |
| | Method | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| | Value type | EC10 |
| | Value | 1.11 mg/l |
| | Acute Toxicity Study | Fish |
| | Exposure time | 35 d |
| | Species | Danio rerio |
| | Method | OECD Guideline 210 (fish early lite stage toxicity test) |
| 1,4-bis(2,3 epoxypropoxy)butane 2425-79-8 | Value type | EC50 |
| | Value | 75 mg/l |
| | Acute Toxicity Study | Daphnia |
| | Exposure time | 24 h |
| | Species | Daphnia magna |
| | Method | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 1,4-bis(2,3 epoxypropoxy)butane 2425-79-8 | Value type | EC50 |
| | Value | > 160 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata) |
| | Method | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| | Value type | NOELR |
| | Value | 40 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata) |
| | Method | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 1,4-bis(2,3 epoxypropoxy)butane 2425-79-8 | Value type | IC50 |
| | Value | > 100 mg/l |
| | Acute Toxicity Study | Bacteria |
| | Exposure time | 3 h |
| | Species | activated sludge |
| | Method | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| dapsone 80-08-0 | Value type | LC50 |
| | Value | > 100 mg/l |
| | Acute Toxicity Study | Fish |
| | Exposure time | 96 h |
| | Species | Cyprinus carpio |
| | Method | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| dapsone 80-08-0 | Value type | EC50 |
| | Value | 2.7 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) |
| dapsone 80-08-0 | Value type | EC50 |
| | Value | > 1,000 mg/l |
| | Acute Toxicity Study | Bacteria |
| | Exposure time | 3 h |
| | Species | activated sludge of a predominantly domestic sewage |
| | Method | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |

**Persistence and degradability:**

| | | |
|---|---|---|
| Reaction mass bisphenol-F-(epichlorhydrin) 9003-36-5 | Result | not readily biodegradable. |
| | Route of application | aerobic |
| | Degradability | 0 % |
| | Method | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| 1,4-bis(2,3 epoxypropoxy)butane 2425-79-8 | Result | not readily biodegradable. |
| | Route of application | aerobic |
| | Degradability | 38 % |
| | Method | OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test) |
| | Result | inherently biodegradable |
| | Route of application | aerobic |
| | Degradability | 98 % |
| | Method | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| dapsone 80-08-0 | Result | not readily biodegradable. |
| | Route of application | aerobic |
| | Degradability | > 0 - < 1 % |
| | Method | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |

**Bioaccumulative potential / Mobility in soil:**

| | | |
|---|---|---|
| Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment 7440-22-4 | Bioconcentration factor (BCF) | 70 |
| | Exposure time | 42 d |
| | Species | Cyprinus carpio |
| | Temperature | 20 °C |
| | Method | other guideline: |
| Reaction mass bisphenol-F-(epichlorhydrin) 9003-36-5 | LogPow | 2.7 - 3.6 |
| | Temperature | |
| | Method | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| 1,4-bis(2,3 epoxypropoxy)butane 2425-79-8 | LogPow | -0.269 |
| | Temperature | 25 °C |
| | Method | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| dapsone 80-08-0 | LogPow | 0.97 |
| | Temperature | 25 °C |
| | Method | QSAR (Quantitative Structure Activity Relationship) |

## 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: | 9 |
| Packing group: | III |
| Classification code: | M6 |
| Hazard ident. number: | 90 |
| UN no.: | 3082 |
| Label: | 9 |
| Technical name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver) |
| Additional information: | UN 1845, carbon dioxide, solid, as a coolant (does not apply for Germany, Sweden, France, Belgium, UK) |

**Railroad transport RID:**

| | |
|---|---|
| Class: | 9 |
| Packing group: | III |
| Classification code: | M6 |
| Hazard ident. number: | 90 |
| UN no.: | 3082 |
| Label: | 9 |
| Technical name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver) |

**Inland water transport ADN:**

| | |
|---|---|
| Class: | 9 |
| Packing group: | III |
| Classification code: | M6 |
| Hazard ident. number: | 90 |
| UN no.: | 3082 |
| Label: | 9 |
| Technical name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver) |

**Marine transport IMDG:**

| | |
|---|---|
| Class: | 9 |
| Packing group: | III |
| UN no.: | 3082 |
| Label: | 9 |
| EmS: | F-A ,S-F |
| Seawater pollutant: | Marine pollutant |
| Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver) |

**Air transport IATA:**

| | |
|---|---|
| Class: | 9 |
| Packing group: | III |
| Packaging instructions (passenger): | 964 |
| Packaging instructions (cargo): | 964 |
| UN no.: | 3082 |
| Label: | 9 |
| Proper shipping name: | Environmentally hazardous substance, liquid, n.o.s. (Silver) |

**Further information for transport:**

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), A197 (IATA), 2.10.2.7 (IMDG), NZ 4.3(10) may be applied, which can result in a deviation from the transport classification for packed goods.

## Section 15. Regulatory information

**Regulatory Information:**
Ministry of Industry Notice. The system to classify and communicate the hazard of hazardous material, BE. 2555

**Global inventory status:**

| Regulatory list | Notification |
|---|---|
| TSCA | yes |
| DSL | yes |
| KECI (KR) | yes |
| IECSC | yes |
| TCSI | yes |
| PICCS (PH) | yes |

## Section 16. Other information

**Disclaimer:**
This Safety Data Sheet has been generated based on Ministry of Industry Notice. The system to classify and communicate the hazard of hazardous material, BE. 2555 only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.
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.
Dear Customer,
Henkel is committed to creating a sustainable future by promoting opportunities along the entire value chain. If you would like to contribute by switching from a paper to the electronic version of SDS, please contact the local Customer Service representative. We recommend to use a non-personal email address (e.g. SDS@your_company.com).