

LOCTITE 268

Safety Data Sheet according to Regulation (EC) No 1907/2006

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SDS No.: 153641

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

LOCTITE 268

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use: Threadlocker

${f 1.3.}$ Details of the supplier of the safety data sheet

Henkel Ltd Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000 Fax-no.: +44 1442 278071

ua-productsafety.uk@henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

$\textbf{Classification} \ (\textbf{CLP}) \textbf{:}$

Skin sensitizer Category 1

H317 May cause an allergic skin reaction. Chronic hazards to the aquatic environment

Chronic hazards to the aquatic environment

Category 3

H412 Harmful to aquatic life with long lasting effects.

Label elements (CLP):

2.2. Label elements

Hazard pictogram:



Contains Diamid wax mixture

Signal word: Warning

Hazard statement: H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statement: P280 Wear protective gloves.

Prevention P273 Avoid release to the environment.

Precautionary statement:

Response

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:

Threadlocker Stick

Declaration of the ingredients according to CLP (EC) No 1272/2008:

| Hazardous components CAS-No. | EC Number REACH-Reg No. | content | Classification |
|----------------------------------------------------------|-------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | 609-946-4 01-2119980659-17 | 25- 50 % | Aquatic Chronic 4 H413 |
| Diamid wax mixture | 430-050-2 01-0000019941-65 | 10- 20 % | Skin Sens. 1 H317 Aquatic Chronic 2 H411 |
| Cumene hydroperoxide 80-15-9 | 201-254-7 | 0,1-< 1 % | Acute Tox. 4; Dermal H312 STOT RE 2 H373 Acute Tox. 4; Oral H302 Org. Perox. E H242 Acute Tox. 3; Inhalation H331 Aquatic Chronic 2 H411 Skin Corr. 1B H314 |
| N,N-Diethyl-p-toluidine 613-48-9 | 210-345-0 | 0,1-< 1 % | Acute Tox. 3; Oral H301 Acute Tox. 3; Dermal H311 Acute Tox. 3; Inhalation H331 STOT RE 2 H373 Aquatic Chronic 3 H412 |
| 1-Methyl-2-pyrrolidone 872-50-4 | 212-828-1 01-2119472430-46 | 0,1-< 0,3 % | Repr. 1B H360D STOT SE 3 H335 Skin Irrit. 2 H315 Eye Irrit. 2 H319 ===== EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC) |
| N,N-dimethyl-o-toluidine 609-72-3 | 210-199-8 | 0,1-< 1 % | Acute Tox. 3; Inhalation H331 Acute Tox. 3; Dermal H311 Acute Tox. 3; Oral H301 STOT RE 2 H373 Aquatic Chronic 3 H412 |
| 1,4-Naphthalenedione 130-15-4 | 204-977-6 | 0,01- < 0,025 % (100 ppm- < 250 ppm) | Acute Tox. 3; Oral H301 Skin Irrit. 2; Dermal H315 Skin Sens. 1; Dermal H317 Eye Irrit. 2 H319 Acute Tox. 1; Inhalation H330 STOT SE 3; Inhalation H335 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 M factor (Acute Aquat Tox): 10 M factor (Chron Aquat Tox): 10 |

Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

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.

4.2. Most important symptoms and effects, both acute and delayed

SKIN: Rash, Urticaria.

Prolonged or repeated contact may cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide, foam, powder

Fine water spray

Extinguishing media which must not be used for safety reasons:

None known

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:

In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well-ventilated areas.

Avoid skin and eye contact.

Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.

See advice in section 8

Hygiene measures:

Good industrial hygiene practices should be observed.

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction. Store in a cool, well-ventilated place.

Refer to Technical Data Sheet

7.3. Specific end use(s)

Threadlocker

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

| Ingredient [Regulated substance] | ppm | mg/m ³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---------------------------------------------------------------------------|-----|-------------------|--------------------------------------|----------------------------------------------|-----------------|
| Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, INHALABLE DUST] | | 6 | Time Weighted Average (TWA): | | EH40 WEL |
| Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE DUST] | | 2,4 | Time Weighted Average (TWA): | | EH40 WEL |
| Ethene, homopolymer 9002-88-4 [DUST, INHALABLE DUST] | | 10 | Time Weighted Average (TWA): | | EH40 WEL |
| Ethene, homopolymer 9002-88-4 [DUST, RESPIRABLE DUST] | | 4 | Time Weighted Average (TWA): | | EH40 WEL |
| 1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE] | | | Skin designation: | Can be absorbed through the skin. | EH40 WEL |
| 1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE] | 20 | 80 | Short Term Exposure Limit (STEL): | | EH40 WEL |
| 1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE] | 10 | 40 | Time Weighted Average (TWA): | | EH40 WEL |
| 1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE] | 20 | 80 | Short Term Exposure Limit (STEL): | Indicative | ECTLV |
| 1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE] | | | Skin designation: | Can be absorbed through the skin. | ECTLV |
| 1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE] | 10 | 40 | Time Weighted Average (TWA): | Indicative | ECTLV |

Occupational Exposure Limits

Valid for

Ireland

| Ingredient [Regulated substance] | ppm | mg/m ³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|--------------------------------------------------------------------------------|-----|-------------------|--------------------------------------|----------------------------------------------|-----------------|
| Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, TOTAL INHALABLE DUST] | | 6 | Time Weighted Average (TWA): | | IR_OEL |
| Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE DUST] | | 2,4 | Time Weighted Average (TWA): | | IR_OEL |
| Ethene, homopolymer 9002-88-4 [DUSTS, NON-SPECIFIC, RESPIRABLE] | | 4 | Time Weighted Average (TWA): | | IR_OEL |
| Ethene, homopolymer 9002-88-4 [DUSTS, NON-SPECIFIC, TOTAL INHALABLE] | | 10 | Time Weighted Average (TWA): | | IR_OEL |
| 1-Methyl-2-pyrrolidone 872-50-4 [1-METHYL-2-PYRROLIDONE] | 10 | 40 | Time Weighted Average (TWA): | Indicative OELV | IR_OEL |
| 1-Methyl-2-pyrrolidone 872-50-4 [1-METHYL-2-PYRROLIDONE] | 20 | 80 | Short Term Exposure Limit (STEL): | Indicative OELV | IR_OEL |
| 1-Methyl-2-pyrrolidone | İ | Ì | Skin designation: | Can be absorbed through the | IR_OEL |

| 872-50-4 | | | | skin. | |
|------------------------------------|----|----|--------------------------------------|-----------------------------|-------|
| [1-METHYL-2-PYRROLIDONE] | | | | | |
| 1-Methyl-2-pyrrolidone 872-50-4 | 20 | 80 | Short Term Exposure Limit (STEL): | Indicative | ECTLV |
| [N-METHYL-2-PYRROLIDONE] | | | | | |
| 1-Methyl-2-pyrrolidone | | | Skin designation: | Can be absorbed through the | ECTLV |
| 872-50-4 | | | _ | skin. | |
| [N-METHYL-2-PYRROLIDONE] | | | | | |
| 1-Methyl-2-pyrrolidone | 10 | 40 | Time Weighted Average | Indicative | ECTLV |
| 872-50-4 | | | (TWA): | | |
| [N-METHYL-2-PYRROLIDONE] | | | | | |

Predicted No-Effect Concentration (PNEC):

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|----------------------------------------------------------|------------------------------------|-----------------|------------|-----|------------------|--------|---------|
| | | F | mg/l | ppm | mg/kg | others | |
| Bisphenol A, 2-EO dimethacrylate | aqua | | | 1. | | | |
| 41637-38-1 | (freshwater) | | | | | | |
| Bisphenol A, 2-EO dimethacrylate 41637-38-1 | aqua (marine water) | | | | | | |
| Bisphenol A, 2-EO dimethacrylate | sewage | | | | | | |
| 41637-38-1 | treatment plant (STP) | | | | | | |
| Bisphenol A, 2-EO dimethacrylate 41637-38-1 | sediment (freshwater) | | | | | | |
| Bisphenol A, 2-EO dimethacrylate 41637-38-1 | sediment (marine water) | | | | | | |
| Bisphenol A, 2-EO dimethacrylate 41637-38-1 | Air | | | | | | |
| Bisphenol A, 2-EO dimethacrylate 41637-38-1 | soil | | | | | | |
| Bisphenol A, 2-EO dimethacrylate 41637-38-1 | Predator | | | | | | |
| .alpha.,.alphaDimethylbenzyl | aqua | | 0,0031 | | | | |
| hydroperoxide 80-15-9 | (freshwater) | | mg/l | | | | |
| .alpha.,.alphaDimethylbenzyl | aqua (marine | | 0,00031 | | | | |
| hydroperoxide 80-15-9 | water) | | mg/l | | | | |
| .alpha.,.alphaDimethylbenzyl | aqua | | 0,031 mg/l | | | | |
| hydroperoxide | (intermittent | | | | | | |
| 80-15-9 | releases) | | | | | | |
| .alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9 | Sewage treatment plant | | 0,35 mg/l | | | | |
| .alpha.,.alphaDimethylbenzyl | sediment | | | | 0.023 | | |
| hydroperoxide 80-15-9 | (freshwater) | | | | mg/kg | | |
| .alpha.,.alphaDimethylbenzyl | sediment | | | | 0,0023 | | |
| hydroperoxide 80-15-9 | (marine water) | | | | mg/kg | | |
| .alpha.,.alphaDimethylbenzyl | soil | | | | 0,0029 | | |
| hydroperoxide 80-15-9 | | | | | mg/kg | | |
| 1-Methyl-2-pyrrolidone 872-50-4 | aqua (freshwater) | | 0,25 mg/l | | | | |
| 1-Methyl-2-pyrrolidone 872-50-4 | aqua (marine water) | | 0,025 mg/l | | | | |
| 1-Methyl-2-pyrrolidone 872-50-4 | aqua (intermittent releases) | | 5 mg/l | | | | |
| 1-Methyl-2-pyrrolidone 872-50-4 | sediment (freshwater) | | | | 0,805 mg/kg | | |
| 1-Methyl-2-pyrrolidone 872-50-4 | soil | | | | 0,138 mg/kg | | |
| 1-Methyl-2-pyrrolidone 872-50-4 | sewage treatment plant (STP) | | 10 mg/l | | <i>3</i> 5 | | |
| 1-Methyl-2-pyrrolidone 872-50-4 | oral | | | | 0,00167 mg/kg | | |
| 1-Methyl-2-pyrrolidone | sediment | | | | 0,0805 | | |
| 872-50-4 | (marine water) | | | | mg/kg | | |

Derived No-Effect Level (DNEL):

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|----------------------------------------------------------|---------------------|----------------------|----------------------------------------------------|------------------|------------|---------|
| Bisphenol A, 2-EO dimethacrylate 41637-38-1 | Workers | inhalation | Long term exposure - systemic effects | | 3,52 mg/m3 | |
| Bisphenol A, 2-EO dimethacrylate 41637-38-1 | Workers | dermal | Long term exposure - systemic effects | | 2 mg/kg | |
| Bisphenol A, 2-EO dimethacrylate 41637-38-1 | General population | inhalation | Long term exposure - systemic effects | | 0,87 mg/m3 | |
| Bisphenol A, 2-EO dimethacrylate 41637-38-1 | General population | dermal | Long term exposure - systemic effects | | 1 mg/kg | |
| Bisphenol A, 2-EO dimethacrylate 41637-38-1 | General population | oral | Long term exposure - systemic effects | | 0,5 mg/kg | |
| .alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9 | Workers | inhalation | Long term exposure - systemic effects | | 6 mg/m3 | |
| 1-Methyl-2-pyrrolidone 872-50-4 | Workers | dermal | Acute/short term exposure - systemic effects | | 208 mg/kg | |
| 1-Methyl-2-pyrrolidone 872-50-4 | Workers | Inhalation | Acute/short term exposure - systemic effects | | 80 mg/m3 | |
| 1-Methyl-2-pyrrolidone 872-50-4 | Workers | dermal | Long term exposure - systemic effects | | 19,8 mg/kg | |
| 1-Methyl-2-pyrrolidone 872-50-4 | Workers | Inhalation | Long term exposure - systemic effects | | 40 mg/m3 | |

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

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.

Skin protection:

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance solid material

wax

red Odor mild

Odour threshold No data available / Not applicable

pH Not applicable

Melting point No data available / Not applicable Solidification temperature No data available / Not applicable

Initial boiling point > 149 °C (> 300.2 °F)

Flash point Not applicable

Evaporation rate

No data available / Not applicable
Flammability

No data available / Not applicable
Explosive limits

No data available / Not applicable

Vapour pressure < 6,67 mbar

(20 °C (68 °F))
Relative vapour density:

No data available / Not applicable

Density 1,07 g/cm3

1,07 g/cm

()
Bulk density
No data available / Not applicable
Solubility
No data available / Not applicable

Solubility (qualitative) Slight

(Solvent: Water)

Solubility (qualitative) Not applicable

(Solvent: Acetone)

Partition coefficient: n-octanol/water

Auto-ignition temperature

Decomposition temperature

No data available / Not applicable
No data available / Not applicable
No data available / Not applicable
Viscosity

No data available / Not applicable
Viscosity (kinematic)

No data available / Not applicable
Explosive properties

No data available / Not applicable
Oxidising properties

No data available / Not applicable
No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Strong oxidizing agents.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

No decomposition if used according to specifications.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

carbon oxides.

SECTION 11: Toxicological information

General toxicological information:

Prolonged or repeated contact may cause skin irritation. Prolonged or repeated contact may cause eye irritation.

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Species | Method |
|-------------------------|-------|---------------|---------|------------------------------------------|
| CAS-No. | type | | | |
| Ethoxylated bisphenol A | LD50 | > 2.000 mg/kg | rat | OECD Guideline 423 (Acute Oral toxicity) |
| dimethacrylate esters | | | | |
| 41637-38-1 | | | | |
| Diamid wax mixture | LD50 | > 2.000 mg/kg | rat | not specified |
| | | | | |
| Cumene hydroperoxide | LD50 | 550 mg/kg | rat | not specified |
| 80-15-9 | | | | |
| 1-Methyl-2-pyrrolidone | LD50 | 4.150 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| 872-50-4 | | | | |
| 1,4-Naphthalenedione | LD50 | 190 mg/kg | rat | not specified |
| 130-15-4 | | | | |

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Species | Method |
|----------------------------------------------------------|-------|------------------------|---------|--------------------------------------------|
| CAS-No. | type | | | |
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| Cumene hydroperoxide 80-15-9 | LD50 | 1.200 - 1.520 mg/kg | | not specified |
| 1-Methyl-2-pyrrolidone 872-50-4 | LD50 | > 5.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Test atmosphere | Exposure time | Species | Method |
|------------------------------------|---------------|------------|-----------------|---------------|---------|------------------------------------------------|
| 1-Methyl-2-pyrrolidone 872-50-4 | LC50 | > 5,1 mg/l | dust/mist | 4 h | rat | OECD Guideline 403 (Acute Inhalation Toxicity) |

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Result | Exposure time | Species | Method |
|----------------------------------------------------------|-----------------------|---------------|---------|----------------------------------------------------------|
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | not irritating | 4 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Cumene hydroperoxide 80-15-9 | corrosive | | rabbit | Draize Test |
| 1-Methyl-2-pyrrolidone 872-50-4 | irritating | 24 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| 1-Methyl-2-pyrrolidone 872-50-4 | moderately irritating | | human | not specified |

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Result | Exposure | Species | Method |
|-------------------------|----------------|----------|---------|-------------------------------------------------------|
| CAS-No. | | time | | |
| Ethoxylated bisphenol A | not irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| dimethacrylate esters | | | | |
| 41637-38-1 | | | | |
| 1-Methyl-2-pyrrolidone | irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| 872-50-4 | | | | |

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances | Result | Test type | Species | Method |
|-------------------------|-----------------|-----------------------|---------|-----------------------------------------|
| CAS-No. | | | | |
| Ethoxylated bisphenol A | not sensitising | Mouse local lymphnode | mouse | OECD Guideline 429 (Skin Sensitisation: |
| dimethacrylate esters | | assay (LLNA) | | Local Lymph Node Assay) |
| 41637-38-1 | | - | | |
| 1-Methyl-2-pyrrolidone | not sensitising | Mouse local lymphnode | mouse | OECD Guideline 429 (Skin Sensitisation: |
| 872-50-4 | | assay (LLNA) | | Local Lymph Node Assay) |

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Result | Type of study / Route of administration | Metabolic activation / Exposure time | Species | Method |
|----------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------|--------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------|
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | negative | in vitro mammalian cell micronucleus test | with and without | | OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test) |
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | positive | in vitro mammalian cell micronucleus test | with and without | | OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test) |
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| Cumene hydroperoxide 80-15-9 | positive | bacterial reverse mutation assay (e.g Ames test) | without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| 1-Methyl-2-pyrrolidone 872-50-4 | negative | DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro | without | | OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro) |
| 1-Methyl-2-pyrrolidone 872-50-4 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| 1-Methyl-2-pyrrolidone 872-50-4 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |

Carcinogenicity

No data available.

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances | Result / Value | Test type | Route of | Species | Method |
|-------------------------|----------------------|-----------|--------------|---------|------------------------|
| CAS-No. | | | application | | |
| Ethoxylated bisphenol A | NOAEL P 250 mg/kg | | oral: gavage | rat | OECD Guideline 421 |
| dimethacrylate esters | | | | | (Reproduction / |
| 41637-38-1 | NOAEL F1 1.000 mg/kg | | | | Developmental Toxicity |
| | | | | | Screening Test) |

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances | Result / Value | Route of | Exposure time / | Species | Method |
|-------------------------|-----------------|--------------|----------------------|---------|---------------------------|
| CAS-No. | | application | Frequency of | | |
| | | | treatment | | |
| Ethoxylated bisphenol A | NOAEL 300 mg/kg | oral: gavage | 4 weeks | rat | OECD Guideline 407 |
| dimethacrylate esters | | | daily | | (Repeated Dose 28-Day |
| 41637-38-1 | | | | | Oral Toxicity in Rodents) |
| Cumene hydroperoxide | | inhalation: | 6 h/d | rat | not specified |
| 80-15-9 | | aerosol | 5 d/w | | |
| 1-Methyl-2-pyrrolidone | NOAEL 0,5 mg/l | inhalation | 90 days | rat | OECD Guideline 413 |
| 872-50-4 | | | 6 hrs/day, 5 days/wk | | (Subchronic Inhalation |
| | | | | | Toxicity: 90-Day) |

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

In the cured state contribution of this product to Environmental Hazards is insignificant in comparison to articles in which it is used.

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

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|----------------------------------------------------------------|-------|------------|---------------|--------------------------------------|---------------------------------------------------|
| CAS-No. | type | | | | |
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | LL50 | | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Diamid wax mixture | LC50 | > 0,2 mg/l | 96 h | carp | not specified |
| Cumene hydroperoxide 80-15-9 | LC50 | 3,9 mg/l | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 1-Methyl-2-pyrrolidone 872-50-4 | LC50 | 4.000 mg/l | 96 h | Leuciscus idus | DIN 38412-15 |
| N,N-dimethyl-o-toluidine 609-72-3 | LC 50 | 46 mg/l | 96 h | Fathead minnow (Pimephales promelas) | |

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|----------------------------------------------------------------|---------------|------------------|---------------|---------------|------------------------------------------------------------------|
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | EL50 | | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Diamid wax mixture | EL50 | 15,63 - 250 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Cumene hydroperoxide 80-15-9 | EC50 | 18 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 1-Methyl-2-pyrrolidone 872-50-4 | EC50 | 4.897 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|------------------------------------|-------|-----------|---------------|---------|---------------------------------------------|
| CAS-No. | type | | | | |
| Diamid wax mixture | NOEC | 0,9 mg/l | 21 day | 1 & | OECD 211 (Daphnia magna, Reproduction Test) |
| 1-Methyl-2-pyrrolidone 872-50-4 | NOEC | 12,5 mg/l | 21 d | 1 & | OECD 211 (Daphnia magna, Reproduction Test) |

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|----------------------------------------------------------|-------|------------|---------------|-------------------------------------------------------------|------------------------------------------------------|
| CAS-No. | type | | _ | | |
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | EL50 | | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | EL10 | | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Diamid wax mixture | EC50 | 0,005 mg/l | 72 h | Skeletonema costatum | ISO 10253:2006 (Marine algal growth inhibition test) |
| Diamid wax mixture | NOEC | 0,003 mg/l | 72 h | Skeletonema costatum | ISO 10253:2006 (Marine algal growth inhibition test) |
| Cumene hydroperoxide 80-15-9 | ErC50 | 3,1 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 1-Methyl-2-pyrrolidone 872-50-4 | EC50 | > 500 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | DIN 38412-09 |
| 1,4-Naphthalenedione 130-15-4 | EC50 | 0,011 mg/l | 72 h | Dunaliella bioculata | OECD Guideline 201 (Alga, Growth Inhibition Test) |

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|----------------------------------------------------------------|---------------|---------|---------------|-------------------------------|--------------------------------------------------------------------------|
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | EC50 | | | predominantly domestic sewage | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| Cumene hydroperoxide 80-15-9 | EC10 | 70 mg/l | 30 min | | not specified |

12.2. Persistence and degradability

The product is not biodegradable.

| Hazardous substances | Result | Test type | Degradability | Exposure | Method |
|-------------------------|----------------------------|-----------|---------------|----------|---------------------------------|
| CAS-No. | | | | time | |
| Ethoxylated bisphenol A | not readily biodegradable. | aerobic | 24 % | 28 d | OECD Guideline 301 D (Ready |
| dimethacrylate esters | | | | | Biodegradability: Closed Bottle |
| 41637-38-1 | | | | | Test) |
| Diamid wax mixture | not readily biodegradable. | aerobic | 69,3 % | 28 day | OECD Guideline 301 B (Ready |
| | | | | | Biodegradability: CO2 Evolution |
| | | | | | Test) |
| Cumene hydroperoxide | | no data | 0 % | 28 d | OECD Guideline 301 B (Ready |
| 80-15-9 | | | | | Biodegradability: CO2 Evolution |
| | | | | | Test) |
| 1-Methyl-2-pyrrolidone | inherently biodegradable | aerobic | > 90 % | 8 d | OECD Guideline 302 B (Inherent |
| 872-50-4 | | | | | biodegradability: Zahn- |
| | | | | | Wellens/EMPA Test) |
| 1-Methyl-2-pyrrolidone | readily biodegradable | aerobic | 92 % | 14 d | OECD Guideline 301 C (Ready |
| 872-50-4 | | | | | Biodegradability: Modified MITI |
| | | | | | Test (I)) |
| 1,4-Naphthalenedione | | no data | 0 - 60 % | | OECD 301 A - F |
| 130-15-4 | | | | | |

12.3. Bioaccumulative potential

No data available.

| Hazardous substances | | Exposure time | Temperature | Species | Method |
|----------------------|----------------|---------------|-------------|-------------|---------------------------------|
| CAS-No. | n factor (BCF) | | | | |
| Cumene hydroperoxide | 9,1 | | | calculation | OECD Guideline 305 |
| 80-15-9 | | | | | (Bioconcentration: Flow-through |
| | | | | | Fish Test) |

12.4. Mobility in soil

Cured adhesives are immobile.

| Hazardous substances | LogPow | Temperature | Method |
|----------------------------------------------------------|------------|-------------|------------------------------------------------------------------------------------|
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | 5,3 - 5,62 | | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Diamid wax mixture | 5,4 - 6,6 | 25 °C | EU Method A.8 (Partition Coefficient) |
| Cumene hydroperoxide 80-15-9 | 2,16 | | not specified |
| 1-Methyl-2-pyrrolidone 872-50-4 | -0,46 | 25 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| 1,4-Naphthalenedione 130-15-4 | 1,71 | | not specified |

12.5. Results of PBT and vPvB assessment

| Hazardous substances | PBT / vPvB |
|-----------------------------------------------|--------------------------------------------------------------------------------------|
| CAS-No. | |
| Ethoxylated bisphenol A dimethacrylate esters | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 41637-38-1 | Bioaccumulative (vPvB) criteria. |
| Diamid wax mixture | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| | Bioaccumulative (vPvB) criteria. |
| Cumene hydroperoxide | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 80-15-9 | Bioaccumulative (vPvB) criteria. |
| 1-Methyl-2-pyrrolidone | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 872-50-4 | Bioaccumulative (vPvB) criteria. |
| 1,4-Naphthalenedione | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 130-15-4 | Bioaccumulative (vPvB) criteria. |

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Contribution of this product to waste is very insignificant in comparison to article in which it is used

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Disposal must be made according to official regulations.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

14.1. UN number

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.4. Packing group

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.5. Environmental hazards

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.6. Special precautions for user

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC content <3 % (2010/75/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

H242 Heating may cause a fire.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

H360D May damage the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

Further information:

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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.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.