



SAFETY DATA SHEET

CLIMATECOOLER CATALYST

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

1.1 Product identifier

Product name : CLIMATECOOLER CATALYST
Product code : TFC01
Product description : Waterborne modified acrylate paint with photocatalytic effect.

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

Recommended use: Painting work

1.3 Details of the supplier of the safety data sheet

Manufacturer or Distributor

Tikkurila Oyj
P.O. Box 53
FI-01301 VANTAA
FINLAND
Telephone +358 20 191 2000

e-mail address of person responsible for this SDS : Tikkurila Oyj,
Product Safety,
e-mail: productsafety@tikkurila.com

1.4 Emergency telephone number

Telephone number : 112
(24h)

Supplier or Manufacturer

Telephone number : Tikkurila Oyj
+358 20 191 2000 Mon-Fri 8-16

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

2.2 Label elements

Signal word : No signal word.

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

Precautionary statements

General : Not applicable.

Prevention : P273 - Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Contains reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) and 2-octyl-2H-isothiazol-3-one. May produce an allergic reaction.

Wear protective gloves.

2.3 Other hazards

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

| Product/ingredient name | Identifiers | % | Classification Regulation (EC) No. 1272/2008 [CLP] | Notes |
|---|--|---------|--|-------|
| 2-(2-butoxyethoxy)ethanol | REACH #: 01-2119475104-44 EC: 203-961-6 CAS: 112-34-5 Index: 603-096-00-8 | ≤3 | Eye Irrit. 2, H319 | - |
| terbutryn | EC: 212-950-5 CAS: 886-50-0 | ≤0,02 | Acute Tox. 4, H302 Skin Sens. 1, H317 Aquatic Chronic 1, H410 (M=100) | - |
| bronopol | EC: 200-143-0 CAS: 52-51-7 Index: 603-085-00-8 | ≤0,1 | Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 (M=10) | - |
| 2-octyl-2H-isothiazol-3-one | EC: 247-761-7 CAS: 26530-20-1 Index: 613-112-00-5 | ≤0,01 | Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10) | - |
| zinc pyrithione | REACH #: 01-2119511196-46 EC: 236-671-3 CAS: 13463-41-7 | ≤0,01 | Acute Tox. 3, H301 Acute Tox. 3, H331 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10) | - |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) | CAS: 55965-84-9 | <0,0015 | Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) See Section 16 for the full text of the H statements declared above. | - |

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Notes, if applicable, refer to Notes given in Annex VI of 1272/2008/EC.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Show this safety data sheet or label to the doctor if possible.
- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of lukewarm water, keeping eyelids open. Continue to rinse for at least 10 minutes.
- Inhalation** : Remove to fresh air.

- Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious). If significant amounts have been swallowed or if symptoms persist, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

Contains:

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)

2-octyl-2H-isothiazol-3-one

May produce an allergic reaction.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire. Recommended: Alcohol resistant foam, CO₂, powders or water spray/mist.

Unsuitable extinguishing media : Do not use a direct water jet that could spread the fire.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : This product is not classified as flammable. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous thermal decomposition products : When exposed to high temperatures, may produce hazardous decomposition products, such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

5.3 Advice for firefighters

Special protective actions for fire-fighters : Use water spray to keep fire-exposed containers cool. This material is hazardous to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special protective equipment for fire-fighters : Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions : Hazardous to aquatic environment. Do not allow to enter drains, water courses or soil.

6.3 Methods and materials for containment and cleaning up : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Preferably clean with water or detergent. Avoid using solvents.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling** : Skin contact with the product and exposure to spray mist and vapor should be avoided. Avoid inhalation of dust from sanding. See Section 8 for information on appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled and stored. Wash hands before breaks and immediately after handling the product. Avoid release to the environment.
- 7.2 Conditions for safe storage, including any incompatibilities** : Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature is +5°C ...+25°C. Do not allow to freeze. Store in accordance with local regulations.
- 7.3 Specific end use(s)** : None.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|---------------------------|--|
| 2-(2-butoxyethoxy)ethanol | EU OEL (Europe, 12/2009). Notes: list of indicative occupational exposure limit values TWA: 67,5 mg/m ³ 8 hours. TWA: 10 ppm 8 hours. STEL: 101,2 mg/m ³ 15 minutes. STEL: 15 ppm 15 minutes. |

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Comply with the health and safety at work laws.

Individual protection measures

- Eye/face protection** : Safety eyewear should be used when there is a likelihood of exposure. Use safety eyewear (EN166), especially during spray-application.
- Hand protection** : Wear protective gloves. Gloves should be replaced regularly and if there is any sign of damage to the glove material. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
 Recommended glove material (EN374):
 > 8 hours (breakthrough time): nitrile rubber
 Not recommended: PVA gloves
- Skin protection** : Wear appropriate personal protective clothing to prevent skin contact.
- Respiratory protection** : If ventilation during spray-application is inadequate, use respirators with combination filter AP, gas/dust filter (EN405:2001). Wear a respirator with type P2 filter during sanding (EN149:2001). Be sure to use an approved/certified respirator or equivalent. Check that mask fits tightly and change filter regularly.

Environmental exposure controls : For information regarding environmental protection measures, please refer to section 13 for waste handling, section 7 for handling and storage and section 1.2 for relevant identified uses of the substance or mixture and uses advised against.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

| | |
|--|--|
| Physical state | : Liquid. |
| Color | : White. |
| Odor | : Mild. |
| Odor threshold | : Not relevant for the hazard assessment of the product. |
| pH | : Not relevant for the hazard assessment of the product. |
| Melting point/freezing point | : 0°C (water) |
| Initial boiling point and boiling range | : 100°C (water) |
| Flash point | : >100 °C |
| Evaporation rate | : Not relevant due the nature of the product. |
| Flammability (solid, gas) | : Not applicable. Product is a liquid. |
| Upper/lower flammability or explosive limits | : No flammable ingredients present. |
| Vapor pressure | : 3,2 kPa [room temperature] (water) |
| Vapor density | : Not relevant for the hazard assessment of the product. |
| Density | : 1,4 g/cm ³ |
| Solubility(ies) | : Miscible in water. |
| Partition coefficient: n-octanol/ water | : Not available. |
| Auto-ignition temperature | : Not relevant due the nature of the product. |
| Decomposition temperature | : Not relevant for the hazard assessment of the product. |
| Viscosity | : Not relevant for the hazard assessment of the product. |
| Explosive properties | : No explosive ingredients present. |
| Oxidizing properties | : No oxidizing ingredients present. |

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

| | |
|--|--|
| 10.1 Reactivity | : See Section 10.5. |
| 10.2 Chemical stability | : Stable under recommended storage and handling conditions (see Section 7). |
| 10.3 Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10.4 Conditions to avoid | : Avoid extreme heat and freezing. |
| 10.5 Incompatible materials | : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents strong acids strong alkalis |
| 10.6 Hazardous decomposition products | : When exposed to high temperatures, hazardous decomposition products may be produced, such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc. |

SECTION 11: Toxicological information

11.1 Information on toxicological effects

There is no testdata available on the product itself.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Long term exposure to spray mist may produce respiratory tract irritation. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-------------|---------|-----------|----------|
| bronopol | LD50 Oral | Rat | 342 mg/kg | - |
| 2-octyl-2H-isothiazol-3-one | LD50 Dermal | Rabbit | 690 mg/kg | - |
| | LD50 Oral | Rat | 550 mg/kg | - |
| zinc pyrithione | LD50 Oral | Rat | 269 mg/kg | - |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) | LD50 Oral | Rat | 53 mg/kg | - |

Not classified.

Irritation/Corrosion

Not classified.

Sensitization

The product is not classified as sensitizing by skin contact, but it contains following preservatives or other biocides which may produce an allergic reaction:

1,2-benzisothiazol-3(2H)-one

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)

2-octyl-2H-isothiazol-3-one

terbutryn

Mutagenicity

Not classified.

Carcinogenicity

Not classified.

Reproductive toxicity

Not classified.

Teratogenicity

Not classified.

Specific target organ toxicity (single exposure)

Not classified.

Specific target organ toxicity (repeated exposure)

Not classified.

Aspiration hazard

Not classified.

SECTION 12: Ecological information

Ecological testing has not been conducted on this product.

Do not allow to enter drains, water courses or soil.

The product is classified as environmetally hazardous according to Regulation (EC) 1272/2008.

Harmful to aquatic life with long lasting effects.

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---------------------------------|--|----------|
| terbutryn | Acute EC50 0,1 µg/l Fresh water | Algae - Fragilaria capucina ssp. rumpens | 96 hours |
| | Acute EC50 2 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 2,7 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| bronopol | Acute EC50 0,068 mg/l | Algae - Anabaena flos aqua | 72 hours |
| 2-octyl-2H-isothiazol-3-one | EC50 0,32 mg/l | Daphnia - Daphnia magna | 48 hours |
| | LC50 0,047 mg/l | Fish - Oncorhynchus mykiss | 96 hours |
| zinc pyrithione | EC50 0,0082 mg/l | Daphnia | 48 hours |
| | LC50 0,0026 mg/l | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 197 µg/l Fresh water | Crustaceans - Chydorus sphaericus | 48 hours |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) | Acute EC50 0,379 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 0,16 mg/l | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 0,19 mg/l | Fish - Oncorhynchus mykiss | 96 hours |
| | Chronic NOEC 0,0012 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Chronic NOEC 0,004 mg/l | Daphnia - Daphnia magna | 21 days |

12.2 Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|-------------------|------------|------------------|
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) | - | - | Readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | Bioconcentration factor [BCF] | Potential |
|-----------------------------|--------------------|-------------------------------|-----------|
| zinc pyrithione | 0,9 | 11 | low |
| 2-octyl-2H-isothiazol-3-one | 2,45 | - | low |
| bronopol | 0,18 | - | low |
| terbutryn | 3,74 | - | low |
| 2-(2-butoxyethoxy)ethanol | 1 | - | low |

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : Not available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Methods of disposal : Remove as much product as possible from the tools before cleaning. Liquid residue and cleaning liquids are hazardous waste and must not be emptied into drains or sewage system, but handled in accordance with national regulations. Product residues should be left at special companies which have permission for gathering this kind of wastes.

European waste catalogue (EWC)

| Waste code | Waste designation |
|------------|---|
| 08 01 11* | waste paint and varnish containing organic solvents or other hazardous substances |

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

Packaging

Methods of disposal : Empty packaging should be recycled or disposed of in accordance with national regulations.

Special precautions : No additional information.

SECTION 14: Transport information

This product is not regulated for carriage according to ADR/RID, IMDG, IATA.

| | ADR/RID | IMDG | IATA |
|--|----------------|----------------|--|
| 14.1 UN number | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name | - | - | - |
| 14.3 Transport hazard class(es) | - | - | - |
| 14.4 Packing group | - | - | - |
| 14.5 Environmental hazards | No. | No. | No. |
| Additional information | - | - | The environmentally hazardous substance mark may appear if required by other transportation regulations. |

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Other EU regulations

Europe inventory : Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification

Justification

Aquatic Chronic 3, H412

Calculation method

Full text of abbreviated H statements :

- ✔ 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.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS] :

- ✔ Acute Tox. 3, H301 ACUTE TOXICITY (oral) - Category 3
- Acute Tox. 3, H311 ACUTE TOXICITY (dermal) - Category 3
- Acute Tox. 3, H331 ACUTE TOXICITY (inhalation) - Category 3
- Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4
- Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4
- Aquatic Acute 1, H400 AQUATIC HAZARD (ACUTE) - Category 1
- Aquatic Chronic 1, H410 AQUATIC HAZARD (LONG-TERM) - Category 1
- Aquatic Chronic 3, H412 AQUATIC HAZARD (LONG-TERM) - Category 3
- Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
- Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
- Skin Corr. 1B, H314 SKIN CORROSION/IRRITATION - Category 1B
- Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2
- Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1
- STOT SE 3, H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

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Notice to reader

This Safety Data Sheet is prepared in accordance with Annex II to Regulation (EC) No 1907/2006 (REACH). The information contained in this Safety Data Sheet is based on the present state of knowledge and current EU and national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.