**SDS No. : TNR-C0016-PRN (for EU)**

PRINTRONIX®

# SAFETY DATA SHEET

Toner Powder (Cartridge) for

LP844C

LP654C

**Printronix, LLC.**

PRINTRONIX

# SAFETY DATA SHEET

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

**1.1 Product identifier**

**Product name:** Black toner powder (cartridge) for
LP844C
LP654C
(Toner powder name: ODK-11-TH)

**Product description:** Black Toner

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

**Material uses:** For electrophotographic printing systems

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer:** Oki Electric Industry Co., Ltd.
1-7-12 Toranomon, Minato-ku, Tokyo, 105-8460, Japan
Tel: 03-3501-3111

**Supplier:** Printronix, LLC.
7700 Irvine Center Drive, Suite 700, Irvine, CA 92618 USA

**1.4 Emergency telephone number** Tel. 1-800-665-6210
Tel. 1-714-368-2300

## 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]**

Not classified.

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

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

**2.2 Label elements**

**Hazard pictograms** :

**Signal word** : No signal word.

**Hazard statements** : No known significant effects or critical hazards.

**Precautionary statements**

**Prevention** : Not applicable.

**Response** : Not applicable.

**Storage** : Not applicable.

**Disposal** : Not applicable.

**Hazardous ingredients** :

**Supplemental label elements** : Not applicable.

**Annex XVII - Restrictions** : Not applicable.

**on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

**2.3 Other hazards**

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** : Mixture.

| | | | | |
|---|---|---|---|---|
| | | | | |

There are no 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.

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern
[6] Additional disclosure due to company policy

## SECTION 4: First aid measures

**4.1 Description of first aid measures**

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

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

**Over-exposure signs/symptoms**

| | | |
|---|---|---|
| **Eye contact** | : | Adverse symptoms may include the following:<br>irritation<br>redness |
| **Inhalation** | : | Adverse symptoms may include the following:<br>respiratory tract irritation<br>coughing |
| **Skin contact** | : | No specific data. |
| **Ingestion** | : | No specific data. |

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

| | | |
|---|---|---|
| **Notes to physician** | : | In case of inhalation of decomposition products in a fire, symptoms may be delayed.<br>The exposed person may need to be kept under medical surveillance for 48 hours. |
| **Specific treatments** | : | No specific treatment. |

## SECTION 5: Firefighting measures

**5.1 Extinguishing media**

| | | |
|---|---|---|
| **Suitable extinguishing media** | : | Use dry chemical powder. |
| **Unsuitable extinguishing media** | : | Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. |

**5.2 Special hazards arising from the substance or mixture**

| | | |
|---|---|---|
| **Hazards from the substance or mixture** | : | May form explosible dust-air mixture if dispersed. |
| **Hazardous combustion products** | : | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>halogenated compounds<br>metal oxide/oxides |

**5.3 Advice for firefighters**

| | | |
|---|---|---|
| **Special precautions for fire-fighters** | : | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk.<br>Use water spray to keep fire-exposed containers cool. |
| **Special protective equipment for fire-fighters** | : | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

| | | |
|---|---|---|
| **For non-emergency personnel** | : | No action shall be taken involving any personal risk or without suitable training.<br>Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources.<br>No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment. |
| **For emergency responders** | : | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | : | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

**6.3 Methods and materials for containment and cleaning up**

| | | |
|---|---|---|
| **Small spill** | : | Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | : | Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. |
| **6.4 Reference to other sections** | : | See Section 1 for emergency contact information.<br>See Section 8 for information on appropriate personal protective equipment.<br>See Section 13 for additional waste treatment information. |

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**7.1 Precautions for safe handling**

| | | |
|---|---|---|
| **Protective measures** | : | Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. |
| **Advice on general occupational hygiene** | : | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

**7.2 Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing

materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

**Recommendations** : Not available.
**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| **Europe**<br>No exposure limit value known.<br>**Germany**<br>No exposure limit value known.<br>**Spain**<br>No exposure limit value known.<br>**Austria**<br>No exposure limit value known. | |

**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. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

No DNELs/DMELs available.

**PNECs**

No PNECs available.

### 8.2 Exposure controls

**Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Individual protection measures**

| | | |
|---|---|---|
| **Hygiene measures** | : | Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| **Eye/face protection** | : | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: Splash goggles.,Safety glasses with side shields. |
| **Skin protection** | | |
| **Hand protection** | : | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. > 8 hours (breakthrough time): natural rubber (latex) |
| **Body protection** | : | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Lab coat.,overall |
| **Other skin protection** | : | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: |
| **Respiratory protection** | : | Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. |
| **Environmental exposure controls** | : | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |
| **Remark** | : | The penetration-time of the recommended gloves depends not only on the material.<br>Also other factors may have influence on the penetration-time, as their thickness or the specific use or conditions (temperature). In any case, certificate materials (for example following EN 374) should be selected.<br>Please ask your supplier, if the gloves are suitable for the intended use. |

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| **Appearance** | | |
| **Physical state** | : | Solid. [Powder.] |
| **Color** | : | Black.. |
| **Odor** | : | Odorless. |
| **Odor threshold** | : | Not available. |
| **pH** | : | Not applicable. |
| **Melting point** | : | Not available. |
| **Initial boiling point and boiling range** | : | Not available. |

| | | |
|---|---|---|
| **Flash point** | : | Not available. |
| **Evaporation rate** | : | Not available. |
| **Flammability (solid, gas)** | : | Not available. |
| **Upper/lower flammability or explosive limits** | : | Not available. |
| **Vapor density** | : | Not available. |
| **Density** | : | 1.2 g/cm³ [20°C] |
| **Solubility(ies)** | : | Insoluble in the following materials: cold water and hot water. |
| **Partition coefficient: n-octanol/ water** | : | Not available. |
| **Decomposition temperature** | : | Not available. |
| **Viscosity ( Dynamic )** | : | Not available. |
| **Explosive properties** | : | Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge. |
| **Oxidizing properties** | : | Not available. |

**9.2 Other information**

No additional information.

## SECTION 10: Stability and reactivity

| | | |
|---|---|---|
| **10.1 Reactivity** | : | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | : | The product is stable. |
| **10.3 Possibility of hazardous reactions** | : | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | : | Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge. |
| **10.5 Incompatible materials** | : | Reactive or incompatible with the following materials: oxidizing materials |
| **10.6 Hazardous decomposition products** | : | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

**11.1 Information on toxicological effects**

**Acute toxicity**

| Product/ingredient name | Result | Species | Dose |
|---|---|---|---|
| Proprietary mixture. | LC50 Inhalation Dusts and mists | Rat | >5.07 mg/l |
| | LD50 Oral | Rat | >2000 mg/kg |

**Conclusion/Summary** : Not available.

**Acute toxicity estimates**

| Route | ATE value |
|---|---|
| Not available. | |

**Irritation/Corrosion**

| Product/ingredient name | Result | Species | Score |
|---|---|---|---|
| Proprietary mixture. | Skin - Edema | Rabbit | 0 |
| | Eyes - Cornea opacity | Rabbit | 0 |

**Conclusion/Summary**

**Skin** : On basis of test data (404 Acute Dermal Irritation/Corrosion): Not

classified

**Eyes** : On basis of test data (405 Acute Eye Irritation/Corrosion): Not classified.

**Respiratory** : Not available.

**Sensitizer**

| Product/ingredient name | Route of exposure | Species | Result |
|---|---|---|---|
| Proprietary mixture. | skin | Mouse | Not sensitizing |

**Conclusion/Summary**

**Skin** : Non-sensitizer to skin.

**Respiratory** : Not available.

**Mutagenicity**

| Product/ingredient name | Test | Experiment | Result |
|---|---|---|---|
| Proprietary mixture. | Ames test (TA98, TA100, TA1535, TA1537, TA1538, WP2uvrA) | Subject: Bacteria | Negative |

**Conclusion/Summary** : Not available.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

**Conclusion/Summary** : Not available.

**Teratogenicity**

**Conclusion/Summary** : Not available.

**Specific target organ toxicity (single exposure)**

**Specific target organ toxicity (repeated exposure)**

**Potential acute health effects**

**Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

**Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:
irritation
redness

**Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing

**Skin contact** : No specific data.

**Ingestion** : No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

Not available.

| | | |
|---|---|---|
| **Conclusion/Summary** | : | Not available. |
| **General** | : | Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. |
| **Carcinogenicity** | : | No known significant effects or critical hazards. |
| **Mutagenicity** | : | No known significant effects or critical hazards. |
| **Teratogenicity** | : | No known significant effects or critical hazards. |
| **Developmental effects** | : | No known significant effects or critical hazards. |
| **Fertility effects** | : | No known significant effects or critical hazards. |

**Other information** : Not available.

## SECTION 12: Ecological information

**12.1 Toxicity**

**Conclusion/Summary** : Not available.

**12.2 Persistence and degradability**

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

| | | |
|---|---|---|
| **Soil/water partition coefficient ($K_{OC}$)** | : | Not available. |
| **Mobility** | : | Not available. |

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods**

**Product**

| | | |
|---|---|---|
| **Methods of disposal** | : | The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. |
| **Hazardous waste** | : | Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC. |

**Packaging**

| | | |
|---|---|---|
| **Methods of disposal** | : | The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. |

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not regulated. | 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. | No. |
| **Additional information** | - <br><br> **ADR/RID Classification Code** | | - | - |

**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 IMO instruments** : 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)**

**Annex XIV - List of substances subject to authorization**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Other EU regulations**

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**National regulations**

**Germany**

**Storage class (TRGS 510)** : 13

**Hazard class for water** : 1

**National Inventory List** :

**This refers to country inventory status or Printronix notifications to specific country inventories.**

**Some countries may have additional importation requirements.**

| | | |
|---|---|---|
| **Australia** | : | All components are listed or exempted. |
| **Canada** | : | At least one component is not listed. |
| **China** | : | At least one component is not listed. |
| **Japan** | : | **Japan inventory (ENCS):** All components are listed or exempted.<br>**Japan inventory (ISHL):** All components are listed or exempted. |
| **Philippines** | : | At least one component is not listed. |
| **Republic of Korea** | : | At least one component is not listed. |
| **Taiwan** | : | All components are listed or exempted. |
| **United States** | : | All components are active or exempted. |

**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 |
|---|---|
| Not classified. | |

**Full text of abbreviated H statements**
Not applicable.

**Full text of classifications [CLP/GHS]**
Not applicable.

**Form :** *Europe (EU) SDS REACH 2015/830*

**Notice to reader**
***The information in this SDS is based on the present state of our knowledge and on current laws. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.***

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

**1.1 Product identifier**

**Product name:** Yellow toner powder (cartridge) for
LP844C
LP654C
(Toner powder name: ODY-11-NH)

**Product description:** Yellow Toner

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

**Material uses:** For electrophotographic printing systems

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer:** Oki Electric Industry Co., Ltd.
1-7-12 Toranomon, Minato-ku, Tokyo, 105-8460, Japan
Tel: 03-3501-3111

**Supplier:** Printronix, LLC.
7700 Irvine Center Drive, Suite 700, Irvine, CA 92618 USA

**1.4 Emergency telephone number** Tel. 1-800-665-6210
Tel. 1-714-368-2300

# 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.

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

**2.2 Label elements**

| | | |
|---|---|---|
| **Hazard pictograms** | : | |
| **Signal word** | : | No signal word. |
| **Hazard statements** | : | Harmful to aquatic life with long lasting effects. |

**Precautionary statements**

| | | |
|---|---|---|
| **Prevention** | : | Avoid release to the environment. |
| **Response** | : | Not applicable. |
| **Storage** | : | Not applicable. |
| **Disposal** | : | Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| **Hazardous ingredients** | : | |
| **Supplemental label elements** | : | Not applicable. |
| **Annex XVII - Restrictions on the manufacture,** | : | Not applicable. |

**placing on the market and use of certain dangerous substances, mixtures and articles**

**2.3 Other hazards**

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**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] | Type |
|---|---|---|---|---|
| bis(3,5-di-tert-butylsalicylato-O 1,O 2)zinc | REACH #: 01-0000015304-79<br>EC: 403-360-0<br>CAS: 42405-40-3<br>Index: 030-007-00-4 | 0.25 - 1 | Flam. Sol. 1, H228<br>Acute Tox. 4, H302<br>Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, H410 (M=1)<br><br>**See Section 16 for the full text of the H statements declared above.** | [1] |

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.

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern
[6] Additional disclosure due to company policy

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

## SECTION 4: First aid measures

**4.1 Description of first aid measures**

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

| | | |
|---|---|---|
| **Inhalation** | : | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| **Skin contact** | : | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse.<br>Clean shoes thoroughly before reuse. |
| **Ingestion** | : | Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| **Protection of first-aiders** | : | No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

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

**Over-exposure signs/symptoms**

| | | |
|---|---|---|
| **Eye contact** | : | Adverse symptoms may include the following:<br>irritation<br>redness |
| **Inhalation** | : | Adverse symptoms may include the following:<br>respiratory tract irritation<br>coughing |
| **Skin contact** | : | No specific data. |
| **Ingestion** | : | No specific data. |

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

| | | |
|---|---|---|
| **Notes to physician** | : | In case of inhalation of decomposition products in a fire, symptoms may be delayed.<br>The exposed person may need to be kept under medical surveillance for 48 hours. |
| **Specific treatments** | : | No specific treatment. |

## SECTION 5: Firefighting measures

**5.1 Extinguishing media**

| | | |
|---|---|---|
| **Suitable extinguishing media** | : | Use dry chemical powder. |
| **Unsuitable extinguishing media** | : | Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. |

**5.2 Special hazards arising from the substance or mixture**

| | | |
|---|---|---|
| **Hazards from the substance or mixture** | : | May form explosible dust-air mixture if dispersed. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| **Hazardous combustion products** | : | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>halogenated compounds<br>metal oxide/oxides |

**5.3 Advice for firefighters**

| | | |
|---|---|---|
| **Special precautions for fire-fighters** | : | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk.<br>Use water spray to keep fire-exposed containers cool. |
| **Special protective equipment for fire-fighters** | : | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

| | | |
|---|---|---|
| **For non-emergency personnel** | : | No action shall be taken involving any personal risk or without suitable training.<br>Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources.<br>No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.<br>Put on appropriate personal protective equipment. |
| **For emergency responders** | : | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | : | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material.<br>May be harmful to the environment if released in large quantities. |

**6.3 Methods and materials for containment and cleaning up**

| | | |
|---|---|---|
| **Small spill** | : | Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | : | Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a |

licensed waste disposal contractor.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**7.1 Precautions for safe handling**

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest.
Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid release to the environment. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.
Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

**7.3 Specific end use(s)**

**Recommendations** : Not available.
**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

**8.1 Control parameters**

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| **Europe**<br>No exposure limit value known.<br>**Germany**<br>bis(3,5-di-tert-butylsalicylato-O 1,O 2)zinc<br><br><br><br><br><br>**Spain**<br>No exposure limit value known.<br>**Austria**<br>No exposure limit value known. | **DFG MAC-values list (Germany, 8/2020).**<br>TWA: 2 mg/m³ 8 hours. Form: inhalable fraction<br>PEAK: 4 mg/m³, 4 times per shift, 15 minutes. Form: inhalable fraction<br>PEAK: 0.4 mg/m³, 4 times per shift, 15 minutes. Form: respirable fraction<br>TWA: 0.1 mg/m³ 8 hours. Form: respirable fraction |

**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. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

No DNELs/DMELs available.

**PNECs**

No PNECs available.

**8.2 Exposure controls**

**Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. If operating conditions cause high dust concentrations to be produced, use dust

goggles. Recommended: Splash goggles.,Safety glasses with side shields.

**Skin protection**

| | | |
|---|---|---|
| **Hand protection** | : | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): natural rubber (latex) |
| **Body protection** | : | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Lab coat.,overall |
| **Other skin protection** | : | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: |
| **Respiratory protection** | : | Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. |
| **Environmental exposure controls** | : | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |
| **Remark** | : | The penetration-time of the recommended gloves depends not only on the material.<br>Also other factors may have influence on the penetration-time, as their thickness or the specific use or conditions (temperature). In any case, certificate materials (for example following EN 374) should be selected.<br>Please ask your supplier, if the gloves are suitable for the intended use. |

# SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance**

| | | |
|---|---|---|
| **Physical state** | : | Solid. [Powder.] |
| **Color** | : | Yellow. |
| **Odor** | : | Odorless. |
| **Odor threshold** | : | Not available. |
| **pH** | : | Not applicable. |
| **Melting point** | : | Not available. |
| **Initial boiling point and boiling Range** | : | Not available. |
| **Flash point** | : | Not available. |
| **Evaporation rate** | : | Not available. |
| **Flammability (solid, gas)** | : | Not available. |
| **Upper/lower flammability or** | : | Not available. |

**explosive limits**

| | | |
|---|---|---|
| **Vapor density** | : | Not available. |
| **Density** | : | 1.2 g/cm³ [20°C] |
| **Solubility(ies)** | : | Insoluble in the following materials: cold water and hot water. |
| **Partition coefficient: n-octanol/ water** | : | Not available. |
| **Decomposition temperature** | : | Not available. |
| **Viscosity ( Dynamic )** | : | Not available. |
| **Explosive properties** | : | Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge. |
| **Oxidizing properties** | : | Not available. |

**9.2 Other information**

No additional information.

## SECTION 10: Stability and reactivity

| | | |
|---|---|---|
| **10.1 Reactivity** | : | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | : | The product is stable. |
| **10.3 Possibility of hazardous reactions** | : | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | : | Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge. |
| **10.5 Incompatible materials** | : | Reactive or incompatible with the following materials: oxidizing materials |
| **10.6 Hazardous decomposition products** | : | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

**11.1 Information on toxicological effects**

**Acute toxicity**

| Product/ingredient name | Result | Species | Dose |
|---|---|---|---|
| Proprietary mixture. | LC50 Inhalation Dusts and mists | Rat | >5.07 mg/l |
| | LD50 Oral | Rat | >2000 mg/kg |
| bis(3,5-di-tert-butylsalicylato-O 1,O 2)zinc | LD50 Dermal | Rabbit | >2000 mg/kg |
| | LD50 Oral | Rat | 1800 mg/kg |

**Conclusion/Summary** : Not available.

**Acute toxicity estimates**

| Route | ATE value |
|---|---|
| Not available. | |

**Irritation/Corrosion**

| Product/ingredient name | Result | Species | Score |
|---|---|---|---|
| Proprietary mixture. | Skin - Edema | Rabbit | 0 |
| | Eyes - Cornea opacity | Rabbit | 0 |

**Conclusion/Summary**

**Skin** : On basis of test data (404 Acute Dermal Irritation/Corrosion): Not classified

**Eyes** : On basis of test data (405 Acute Eye Irritation/Corrosion): Not classified.

**Respiratory** : Not available.

**Sensitizer**

| Product/ingredient name | Route of exposure | Species | Result |
|---|---|---|---|
| Proprietary mixture. | skin | Mouse | Not sensitizing |

**Conclusion/Summary**

**Skin** : Not available.

**Respiratory** : Not available.

**Mutagenicity**

| Product/ingredient name | Test | Experiment | Result |
|---|---|---|---|
| Proprietary mixture. | Ames test (TA98, TA100, TA1535, TA1537, TA1538, WP2uvrA) | Experiment: In vitro Subject: Bacteria | Negative |

**Conclusion/Summary** : Not available.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

**Conclusion/Summary** : Not available.

**Teratogenicity**

**Conclusion/Summary** : Not available.

**Specific target organ toxicity (single exposure)**

**Specific target organ toxicity (repeated exposure)**

**Potential acute health effects**

**Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

**Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:
irritation
redness

**Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing

**Skin contact** : No specific data.

**Ingestion** : No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

Not available.

**Conclusion/Summary** : Not available.

**General** : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

**Other information** : Not available.

## SECTION 12: Ecological information

**12.1 Toxicity**

| Product/ingredient name | Result | Species | Exposure | Test |
|---|---|---|---|---|
| Proprietary mixture. | Acute EC50 >100 mg/l | Daphnia | 48 hours | Data on similar product |
| bis(3,5-di-tert-butylsalicylato-O 1,O 2) zinc | Acute EC50 0.6 mg/l | Algae | 72 hours | - |
| | Acute EC50 0.5 mg/l | Daphnia | 48 hours | - |
| | Acute LC50 5.5 mg/l | Fish | 96 hours | - |
| | Acute LC50 4.4 mg/l | Fish | 96 hours | - |

**Conclusion/Summary** : Not available.

**12.2 Persistence and degradability**

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| bis(3,5-di-tert-butylsalicylato-O 1,O 2) zinc | - | - | Not readily |

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

**Soil/water partition coefficient ($K_{OC}$)** : Not available.

**Mobility** : Not available.

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods**

**Product**

**Methods of disposal** : The generation of waste should be avoided or minimized wherever

possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.
Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not regulated. | 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. | No. |
| **Additional information** | - <br><br> **ADR/RID Classification Code** | | - | - |

**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 IMO instruments** : 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)**

**Annex XIV - List of substances subject to authorization**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Annex XVII – Restrictions on the manufacture,** : Not applicable.

**placing on the market and use of certain dangerous substances, mixtures and articles**

**Other EU regulations**

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**National regulations**

**Germany**

| | | |
|---|---|---|
| **Storage class (TRGS 510)** | : | 13 |
| **Hazard class for water** | : | 1 |

**National Inventory List** :

**This refers to country inventory status or Printronix notifications to specific country inventories. Some countries may have additional importation requirements.**

| | | |
|---|---|---|
| **Australia** | : | All components are listed or exempted. |
| **Canada** | : | At least one component is not listed. |
| **China** | : | At least one component is not listed. |
| **Japan** | : | **Japan inventory (ENCS):** All components are listed or exempted.<br>**Japan inventory (ISHL):** All components are listed or exempted. |
| **Philippines** | : | At least one component is not listed. |
| **Republic of Korea** | : | At least one component is not listed. |
| **Taiwan** | : | All components are listed or exempted. |
| **United States** | : | All components are active or exempted. |

**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**

| | |
|---|---|
| H228 | Flammable solid. |
| H302 | Harmful if swallowed. |
| 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. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Acute 1 | AQUATIC HAZARD (ACUTE) - Category 1 |
| Aquatic Chronic 1 | AQUATIC HAZARD (LONG-TERM) - Category 1 |

| | |
|---|---|
| Aquatic Chronic 3<br>Flam. Sol. 1 | AQUATIC HAZARD (LONG-TERM) - Category 3<br>FLAMMABLE SOLIDS - Category 1 |

**Form :** *Europe (EU) SDS REACH 2015/830*

**Notice to reader**

***The information in this SDS is based on the present state of our knowledge and on current laws. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.***

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

**1.1 Product identifier**

**Product name:** Magenta toner powder (cartridge) for
LP844C
LP654C
(Toner powder name: ODM-11-FH)

**Product description:** Magenta Toner

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

**Material uses:** For electrophotographic printing systems

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer:** Oki Electric Industry Co., Ltd.
1-7-12 Toranomon, Minato-ku, Tokyo, 105-8460, Japan
Tel: 03-3501-3111

**Supplier:** Printronix, LLC.
7700 Irvine Center Drive, Suite 700, Irvine, CA 92618 USA

**1.4 Emergency telephone number**

Tel. 1-800-665-6210
Tel. 1-714-368-2300

# 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.

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

**2.2 Label elements**

**Hazard pictograms** :
**Signal word** : No signal word.
**Hazard statements** : Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention** : Avoid release to the environment.
**Response** : Not applicable.
**Storage** : Not applicable.
**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** :
**Supplemental label** : Not applicable.

**elements**

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**2.3 Other hazards**

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**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] | Type |
|---|---|---|---|---|
| bis(3,5-di-tert-butylsalicylato-O 1,O 2)zinc | REACH #: 01-0000015304-79<br>EC: 403-360-0<br>CAS: 42405-40-3<br>Index: 030-007-00-4 | 0.25 - 1 | Flam. Sol. 1, H228<br>Acute Tox. 4, H302<br>Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, H410 (M=1)<br><br>**See Section 16 for the full text of the H statements declared above.** | [1] |

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.

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern
[6] Additional disclosure due to company policy

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

## SECTION 4: First aid measures

**4.1 Description of first aid measures**

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest

occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse.
Clean shoes thoroughly before reuse.

**Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

**Over-exposure signs/symptoms**

**Eye contact** : Adverse symptoms may include the following:
irritation
redness

**Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing

**Skin contact** : No specific data.

**Ingestion** : No specific data.

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

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed.
The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Use dry chemical powder.

| | | |
|---|---|---|
| **Unsuitable extinguishing media** | : | Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. |

**5.2 Special hazards arising from the substance or mixture**

| | | |
|---|---|---|
| **Hazards from the substance or mixture** | : | May form explosible dust-air mixture if dispersed. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| **Hazardous combustion products** | : | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>sulfur oxides<br>halogenated compounds<br>metal oxide/oxides |

**5.3 Advice for firefighters**

| | | |
|---|---|---|
| **Special precautions for fire-fighters** | : | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk.<br>Use water spray to keep fire-exposed containers cool. |
| **Special protective equipment for fire-fighters** | : | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

| | | |
|---|---|---|
| **For non-emergency personnel** | : | No action shall be taken involving any personal risk or without suitable training.<br>Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources.<br>No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.<br>Put on appropriate personal protective equipment. |
| **For emergency responders** | : | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | : | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material.<br>May be harmful to the environment if released in large quantities. |

**6.3 Methods and materials for containment and cleaning up**

| | | |
|---|---|---|
| **Small spill** | : | Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | : | Move containers from spill area. Use spark-proof tools and explosion- |

proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**7.1 Precautions for safe handling**

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest.
Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid release to the environment. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.
Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

**7.3 Specific end use(s)**

**Recommendations** : Not available.
**Industrial sector specific solutions** : Not available.

# SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

**8.1 Control parameters**

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| **Europe**<br>No exposure limit value known.<br>**Germany**<br>bis(3,5-di-tert-butylsalicylato-O 1,O 2)zinc<br><br><br><br><br><br>**Spain**<br>No exposure limit value known.<br>**Austria**<br>No exposure limit value known. | <br><br><br>**DFG MAC-values list (Germany, 8/2020).**<br>TWA: 2 mg/m³ 8 hours. Form: inhalable fraction<br>PEAK: 4 mg/m³, 4 times per shift, 15 minutes. Form: inhalable fraction<br>PEAK: 0.4 mg/m³, 4 times per shift, 15 minutes. Form: respirable fraction<br>TWA: 0.1 mg/m³ 8 hours. Form: respirable fraction |

**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. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

No DNELs/DMELs available.

**PNECs**

No PNECs available.

**8.2 Exposure controls**

**Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: Splash goggles.,Safety glasses with side shields.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): natural rubber (latex)

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Lab coat.,overall

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended:

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Remark** : The penetration-time of the recommended gloves depends not only on the material.
Also other factors may have influence on the penetration-time, as their thickness or the specific use or conditions (temperature). In any case, certificate materials (for example following EN 374) should be selected. Please ask your supplier, if the gloves are suitable for the intended use.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance**

**Physical state** : Solid. [Powder.]
**Color** : Magenta
**Odor** : Odorless.
**Odor threshold** : Not available.
**pH** : Not applicable.
**Melting point** : Not available.

| | | |
|---|---|---|
| **Initial boiling point and boiling range** | : | Not available. |
| **Flash point** | : | Not available. |
| **Evaporation rate** | : | Not available. |
| **Flammability (solid, gas)** | : | Not available. |
| **Upper/lower flammability or explosive limits** | : | Not available. |
| **Vapor density** | : | Not available. |
| **Density** | : | 1.2 g/cm³ [20°C] |
| **Solubility(ies)** | : | Insoluble in the following materials: cold water and hot water. |
| **Partition coefficient: n-octanol/ water** | : | Not available. |
| **Decomposition temperature** | : | Not available. |
| **Viscosity ( Dynamic )** | : | Not available. |
| **Explosive properties** | : | Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge. |
| **Oxidizing properties** | : | Not available. |

**9.2 Other information**

No additional information.

## SECTION 10: Stability and reactivity

| | | |
|---|---|---|
| **10.1 Reactivity** | : | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | : | The product is stable. |
| **10.3 Possibility of hazardous reactions** | : | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | : | Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge. |
| **10.5 Incompatible materials** | : | Reactive or incompatible with the following materials: oxidizing materials |
| **10.6 Hazardous decomposition products** | : | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

**11.1 Information on toxicological effects**

**Acute toxicity**

| Product/ingredient name | Result | Species | Dose |
|---|---|---|---|
| Proprietary mixture. | LC50 Inhalation Dusts and mists | Rat | >5.09 mg/l |
| | LD50 Oral | Rat | >2000 mg/kg |
| bis(3,5-di-tert-butylsalicylato-O 1,O 2)zinc | LD50 Dermal | Rabbit | >2000 mg/kg |
| | LD50 Oral | Rat | 1800 mg/kg |

**Conclusion/Summary** : Not available.

**Acute toxicity estimates**

| Route | ATE value |
|---|---|
| Not available. | |

**Irritation/Corrosion**

| Product/ingredient name | Result | Species | Score |
|---|---|---|---|
| Proprietary mixture. | Skin - Edema<br>Eyes - Cornea opacity | Rabbit<br>Rabbit | 0<br>0 |

**Conclusion/Summary**

**Skin** : On basis of test data (404 Acute Dermal Irritation/Corrosion): Not classified

**Eyes** : On basis of test data (405 Acute Eye Irritation/Corrosion): Not classified.

**Respiratory** : Not available.

**Sensitizer**

| Product/ingredient name | Route of exposure | Species | Result |
|---|---|---|---|
| Proprietary mixture. | skin | Mouse | Not sensitizing |

**Conclusion/Summary**

**Skin** : Not sensitizing

**Respiratory** : Not available.

**Mutagenicity**

| Product/ingredient name | Test | Experiment | Result |
|---|---|---|---|
| Proprietary mixture. | Ames test (TA98, TA100, TA1535, TA1537, TA1538, WP2uvrA) | Subject: Bacteria | Negative |

**Conclusion/Summary** : Not available.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

**Conclusion/Summary** : Not available.

**Teratogenicity**

**Conclusion/Summary** : Not available.

**Specific target organ toxicity (single exposure)**

**Specific target organ toxicity (repeated exposure)**

**Potential acute health effects**

**Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

**Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:
irritation
redness

**Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing

**Skin contact** : No specific data.
**Ingestion** : No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

**Potential immediate effects** : Not available.
**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.
**Potential delayed effects** : Not available.

**Potential chronic health effects**

Not available.

**Conclusion/Summary** : Not available.
**General** : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**Carcinogenicity** : No known significant effects or critical hazards.
**Mutagenicity** : No known significant effects or critical hazards.
**Teratogenicity** : No known significant effects or critical hazards.
**Developmental effects** : No known significant effects or critical hazards.
**Fertility effects** : No known significant effects or critical hazards.

**Other information** : Not available.

# SECTION 12: Ecological information

**12.1 Toxicity**

| Product/ingredient name | Result | Species | Exposure | Test |
|---|---|---|---|---|
| Proprietary mixture. | Acute EC50 >100 mg/l | Daphnia | 48 hours | Data on similar product |
| bis(3,5-di-tert-butylsalicylato-O 1,O 2) zinc | Acute EC50 0.6 mg/l | Algae | 72 hours | - |
| | Acute EC50 0.5 mg/l | Daphnia | 48 hours | - |
| | Acute LC50 5.5 mg/l | Fish | 96 hours | - |
| | Acute LC50 4.4 mg/l | Fish | 96 hours | - |

**Conclusion/Summary** : Not available.

**12.2 Persistence and degradability**

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| bis(3,5-di-tert-butylsalicylato-O 1,O 2) zinc | - | - | Not readily |

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

**Soil/water partition coefficient ($K_{OC}$)** : Not available.
**Mobility** : Not available.

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods**

**Product**

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.
Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not regulated. | 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. | No. |
| **Additional information** | - <br><br> **ADR/RID Classification Code** | | - | - |

**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 IMO instruments** : 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)**

**Annex XIV - List of substances subject to authorization**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Other EU regulations**

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**National regulations**

**Germany**

**Storage class (TRGS 510)** : 13

**Hazard class for water** : 1

**National Inventory List** :

**This refers to country inventory status or Printronix notifications to specific country inventories. Some countries may have additional importation requirements.**

| | | |
|---|---|---|
| **Australia** | : | All components are listed or exempted. |
| **Canada** | : | At least one component is not listed. |
| **China** | : | At least one component is not listed. |
| **Japan** | : | **Japan inventory (ENCS):** All components are listed or exempted.<br>**Japan inventory (ISHL):** All components are listed or exempted. |
| **Philippines** | : | At least one component is not listed. |
| **Republic of Korea** | : | All components are listed or exempted. |
| **Taiwan** | : | All components are listed or exempted. |
| **United States** | : | All components are active or exempted. |

**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**

| | |
|---|---|
| H228 | Flammable solid. |
| H302 | Harmful if swallowed. |
| 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. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Acute 1 | AQUATIC HAZARD (ACUTE) - Category 1 |
| Aquatic Chronic 1 | AQUATIC HAZARD (LONG-TERM) - Category 1 |
| Aquatic Chronic 3 | AQUATIC HAZARD (LONG-TERM) - Category 3 |
| Flam. Sol. 1 | FLAMMABLE SOLIDS - Category 1 |

**Form :** *Europe (EU) SDS REACH 2015/830*

**Notice to reader**

***The information in this SDS is based on the present state of our knowledge and on current laws. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.***

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

**1.1 Product identifier**

**Product name:** Cyan toner powder (cartridge) for
LP844C
LP654C
(Toner powder name: ODC-11-MH)

**Product description:** Cyan Toner

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

**Material uses:** For electrophotographic printing systems

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer:** Oki Electric Industry Co., Ltd.
1-7-12 Toranomon, Minato-ku, Tokyo, 105-8460, Japan
Tel: 03-3501-3111

**Supplier:** Printronix, LLC.
7700 Irvine Center Drive, Suite 700, Irvine, CA 92618 USA

**1.4 Emergency telephone number** Tel. 1-800-665-6210
Tel. 1-714-368-2300

# 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.

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

**2.2 Label elements**

| | | |
|---|---|---|
| **Hazard pictograms** | : | |
| **Signal word** | : | No signal word. |
| **Hazard statements** | : | Harmful to aquatic life with long lasting effects. |

**Precautionary statements**

| | | |
|---|---|---|
| **Prevention** | : | Avoid release to the environment. |
| **Response** | : | Not applicable. |
| **Storage** | : | Not applicable. |
| **Disposal** | : | Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| **Hazardous ingredients** | : | |
| **Supplemental label elements** | : | Not applicable. |
| **Annex XVII - Restrictions on the manufacture,** | : | Not applicable. |

**placing on the market and use of certain dangerous substances, mixtures and articles**

**2.3 Other hazards**

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**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] | Type |
|---|---|---|---|---|
| bis(3,5-di-tert-butylsalicylato-O 1,O 2)zinc | REACH #: 01-0000015304-79<br>EC: 403-360-0<br>CAS: 42405-40-3<br>Index: 030-007-00-4 | 0.25 - 1 | Flam. Sol. 1, H228<br>Acute Tox. 4, H302<br>Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, H410 (M=1)<br><br>**See Section 16 for the full text of the H statements declared above.** | [1] |

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.

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern
[6] Additional disclosure due to company policy

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

## SECTION 4: First aid measures

**4.1 Description of first aid measures**

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing

such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse.
Clean shoes thoroughly before reuse.

**Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

**Over-exposure signs/symptoms**

**Eye contact** : Adverse symptoms may include the following:
irritation
redness

**Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing

**Skin contact** : No specific data.

**Ingestion** : No specific data.

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

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed.
The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

**5.1 Extinguishing media**

**Suitable extinguishing media** : Use dry chemical powder.

**Unsuitable extinguishing media** : Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

**5.2 Special hazards arising from the substance or mixture**

**Hazards from the** : May form explosible dust-air mixture if dispersed. This material is

| | | |
|---|---|---|
| **substance or mixture** | | harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| **Hazardous combustion products** | : | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>halogenated compounds<br>metal oxide/oxides |

**5.3 Advice for firefighters**

| | | |
|---|---|---|
| **Special precautions for fire-fighters** | : | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk.<br>Use water spray to keep fire-exposed containers cool. |
| **Special protective equipment for fire-fighters** | : | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

| | | |
|---|---|---|
| **For non-emergency personnel** | : | No action shall be taken involving any personal risk or without suitable training.<br>Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources.<br>No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.<br>Put on appropriate personal protective equipment. |
| **For emergency responders** | : | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | : | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material.<br>May be harmful to the environment if released in large quantities. |

**6.3 Methods and materials for containment and cleaning up**

| | | |
|---|---|---|
| **Small spill** | : | Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | : | Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. |

**6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**7.1 Precautions for safe handling**

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest.
Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid release to the environment. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.
Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

**7.3 Specific end use(s)**

**Recommendations** : Not available.
**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

**8.1 Control parameters**

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| **Europe**<br>No exposure limit value known.<br>**Germany**<br>bis(3,5-di-tert-butylsalicylato-O 1,O 2)zinc<br><br><br><br><br><br>**Spain**<br>No exposure limit value known.<br>**Austria**<br>No exposure limit value known. | **DFG MAC-values list (Germany, 8/2020).**<br>TWA: 2 mg/m³ 8 hours. Form: inhalable fraction<br>PEAK: 4 mg/m³, 4 times per shift, 15 minutes. Form: inhalable fraction<br>PEAK: 0.4 mg/m³, 4 times per shift, 15 minutes. Form: respirable fraction<br>TWA: 0.1 mg/m³ 8 hours. Form: respirable fraction |

**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. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

No DNELs/DMELs available.

**PNECs**

No PNECs available.

**8.2 Exposure controls**

**Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: Splash goggles.,Safety glasses with side

shields.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): natural rubber (latex)

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Lab coat.,overall

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended:

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Remark** : The penetration-time of the recommended gloves depends not only on the material.
Also other factors may have influence on the penetration-time, as their thickness or the specific use or conditions (temperature). In any case, certificate materials (for example following EN 374) should be selected. Please ask your supplier, if the gloves are suitable for the intended use.

# SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance**

| | | |
|---|---|---|
| **Physical state** | : | Solid. [Powder.] |
| **Color** | : | Cyan |
| **Odor** | : | Odorless. |
| **Odor threshold** | : | Not available. |
| **pH** | : | Not applicable. |
| **Melting point** | : | Not available. |
| **Initial boiling point and boiling range** | : | Not available. |
| **Flash point** | : | Not available. |
| **Evaporation rate** | : | Not available. |
| **Flammability (solid, gas)** | : | Not available. |
| **Upper/lower flammability or explosive limits** | : | Not available. |

| | | |
|---|---|---|
| **Vapor density** | : | Not available. |
| **Density** | : | 1.2 g/cm³ [20°C] |
| **Solubility(ies)** | : | Insoluble in the following materials: cold water and hot water. |
| **Partition coefficient: n-octanol/ water** | : | Not available. |
| **Decomposition temperature** | : | Not available. |
| **Viscosity ( Dynamic )** | : | Not available. |
| **Explosive properties** | : | Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge. |
| **Oxidizing properties** | : | Not available. |

**9.2 Other information**

No additional information.

## SECTION 10: Stability and reactivity

| | | |
|---|---|---|
| **10.1 Reactivity** | : | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | : | The product is stable. |
| **10.3 Possibility of hazardous reactions** | : | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | : | Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge. |
| **10.5 Incompatible materials** | : | Reactive or incompatible with the following materials: oxidizing materials |
| **10.6 Hazardous decomposition products** | : | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

**11.1 Information on toxicological effects**

**Acute toxicity**

| Product/ingredient name | Result | Species | Dose |
|---|---|---|---|
| Proprietary mixture. | LC50 Inhalation Dusts and mists | Rat | >4.97 mg/l |
| | LD50 Oral | Rat | >2000 mg/kg |
| bis(3,5-di-tert-butylsalicylato-O 1,O 2)zinc | LD50 Dermal | Rabbit | >2000 mg/kg |
| | LD50 Oral | Rat | 1800 mg/kg |

**Conclusion/Summary** : Not available.

**Acute toxicity estimates**

| Route | ATE value |
|---|---|
| Not available. | |

**Irritation/Corrosion**

| Product/ingredient name | Result | Species | Score |
|---|---|---|---|
| Proprietary mixture. | Eyes - Cornea opacity | Rabbit | 0 |
| | Skin - Edema | Rabbit | 0 |

**Conclusion/Summary**

**Skin** : On basis of test data (404 Acute Dermal Irritation/Corrosion): Not classified

**Eyes** : On basis of test data (405 Acute Eye Irritation/Corrosion): Not classified.

**Respiratory** : Not available.

**Sensitizer**

| Product/ingredient name | Route of exposure | Species | Result |
|---|---|---|---|
| Proprietary mixture. | skin | Mouse | Not sensitizing |

**Conclusion/Summary**

**Skin** : Not sensitizing

**Respiratory** : Not available.

**Mutagenicity**

| Product/ingredient name | Test | Experiment | Result |
|---|---|---|---|
| Proprietary mixture. | Ames test (TA98, TA100, TA1535, TA1537, TA1538, WP2uvrA) | Experiment: In vitro Subject: Bacteria | Negative |

**Conclusion/Summary** : Not available.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

**Conclusion/Summary** : Not available.

**Teratogenicity**

**Conclusion/Summary** : Not available.

**Specific target organ toxicity (single exposure)**

**Specific target organ toxicity (repeated exposure)**

**Potential acute health effects**

**Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

**Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:
irritation
redness

**Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing

**Skin contact** : No specific data.

**Ingestion** : No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

Not available.

**Conclusion/Summary** : Not available.

**General** : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

**Other information** : Not available.

## SECTION 12: Ecological information

**12.1 Toxicity**

| Product/ingredient name | Result | Species | Exposure | Test |
|---|---|---|---|---|
| Proprietary mixture. | Acute EC50 >100 mg/l | Daphnia | 48 hours | Data on similar product |
| bis(3,5-di-tert-butylsalicylato-O 1,O 2) zinc | Acute EC50 0.6 mg/l | Algae | 72 hours | - |
| | Acute EC50 0.5 mg/l | Daphnia | 48 hours | - |
| | Acute LC50 5.5 mg/l | Fish | 96 hours | - |
| | Acute LC50 4.4 mg/l | Fish | 96 hours | - |

**Conclusion/Summary** : Not available.

**12.2 Persistence and degradability**

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| bis(3,5-di-tert-butylsalicylato-O 1,O 2) zinc | - | - | Not readily |

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

**Soil/water partition coefficient ($K_{OC}$)** : Not available.

**Mobility** : Not available.

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods**

**Product**

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.
Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not regulated. | 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. | No. |
| **Additional information** | - <br><br> **ADR/RID Classification Code** | | - | - |

**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 IMO instruments** : 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)**

**Annex XIV - List of substances subject to authorization**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Other EU regulations**

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**National regulations**

**Germany**

**Storage class (TRGS 510)** : 13

**Hazard class for water** : 1

**National Inventory List** :

**This refers to country inventory status or Printronix notifications to specific country inventories. Some countries may have additional importation requirements.**

| | | |
|---|---|---|
| **Australia** | : | All components are listed or exempted. |
| **Canada** | : | At least one component is not listed. |
| **China** | : | At least one component is not listed. |
| **Japan** | : | **Japan inventory (ENCS):** All components are listed or exempted.<br>**Japan inventory (ISHL):** All components are listed or exempted. |
| **Philippines** | : | At least one component is not listed. |
| **Republic of Korea** | : | At least one component is not listed. |
| **Taiwan** | : | All components are listed or exempted. |
| **United States** | : | At least one component is not listed. |

**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**

| | |
|---|---|
| H228 | Flammable solid. |
| H302 | Harmful if swallowed. |
| 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. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Acute 1 | AQUATIC HAZARD (ACUTE) - Category 1 |
| Aquatic Chronic 1 | AQUATIC HAZARD (LONG-TERM) - Category 1 |
| Aquatic Chronic 3 | AQUATIC HAZARD (LONG-TERM) - Category 3 |
| Flam. Sol. 1 | FLAMMABLE SOLIDS - Category 1 |

**Form :** *Europe (EU) SDS REACH 2015/830*

**Notice to reader**

***The information in this SDS is based on the present state of our knowledge and on current laws. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.***