SAFETY DATA SHEET

FLUX RSA 601



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

1.1 Product identifier

Product name : FLUX RSA 601

GHS reference number : Not available.

Product description : Not available.

Product type : Solid: Cored wire

Other means of : CWM, RSA 601

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

Identified uses

identification

Not applicable.

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

AIM 9100 Henri Bourassa East Montreal, QC H1E 2S4 (514) 494-2000

AIM Solder Europe Sp. z.o.o. ul. Papiernicza 7 Łódź 92-312 Poland

e-mail address of person responsible for this SDS

: Safetydata@aimsolder.com

National contact

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : INFOTRAC

Europe: 0800-181-29-24 International: (352) 323-3500

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]

Acute Tox. 3, H301 Acute Tox. 1, H310 Eye Irrit. 2, H319 Skin Sens. 1, H317 Repr. 1B, H360Df Lact.. H362

Aquatic Chronic 1, H410

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SECTION 2: Hazards identification

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 : Danger

Hazard statements : Toxic if swallowed.

Fatal in contact with skin.

May cause an allergic skin reaction. Causes serious eye irritation.

May damage the unborn child. Suspected of damaging fertility.

May cause harm to breast-fed children.

Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

: Obtain special instructions before use. Wear protective gloves, protective clothing and eye or face protection. Avoid release to the environment. Do not get in eyes, on skin, or on clothing. Avoid breathing dust. Avoid contact during pregnancy and while nursing. Wash thoroughly after handling.

Response

: IF SWALLOWED: Immediately call a POISON CENTER or doctor. Take off immediately all contaminated clothing and wash it before reuse. IF ON SKIN: Immediately call a POISON CENTER or doctor. Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. Get medical attention if you feel unwell. IF exposed or concerned: Get medical

attention.

Storage

: Store locked up.

Disposal

Dispose of contents and container in accordance with all local, regional, national

and international regulations.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

Special packaging requirements

Containers to be fitted with child-resistant

: Not applicable.

fastenings

Tactile warning of danger : 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 contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2.

Other hazards which do not result in classification

: None known.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

| Product/ingredient name | Identifiers | % | Classification | Specific Conc. Limits, M-factors and ATEs | Туре |
|-------------------------------------|--|-----------|--|---|---------|
| rosin | EC: 232-475-7 CAS: 8050-09-7 Index: 650-015-00-7 | ≥75 - ≤90 | Skin Sens. 1, H317 Aquatic Chronic 4, H413 | - | [1] |
| tetrahydro-2-furyl-methanol | EC: 202-625-6 CAS: 97-99-4 Index: 603-061-00-7 | ≤10 | Acute Tox. 4, H302 Eye Irrit. 2, H319 Repr. 1B, H360Df | ATE [Oral] = 1600 mg/kg | [1] |
| 1,2,5,6,9,10-hexabromocyclododecane | EC: 221-695-9 CAS: 3194-55-6 Index: 602-109-00-4 | <3 | Acute Tox. 2, H300 Acute Tox. 1, H310 Repr. 2, H361 Lact., H362 Aquatic Chronic 1, H410 | ATE [Oral] = 5 mg/ kg ATE [Dermal] = 5 mg/kg M [Chronic] = 10 | [1] [2] |
| dimethylammonium chloride | EC: 208-046-5 CAS: 506-59-2 | <3 | Acute Tox. 4, H302 Eye Dam. 1, H318 See Section 16 for the full text of the H statements declared above. | ATE [Oral] = 1070 mg/kg | [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, vPvBs or Substances of equivalent concern, 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 meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

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.

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 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

: Get medical attention immediately. Call a poison center or physician. Gently wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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SECTION 4: First aid measures

Ingestion

: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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. 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. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

irritation redness

reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion: Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

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 an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

media

: None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

: This material is very toxic 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:

carbon dioxide carbon monoxide nitrogen oxides

halogenated compounds

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SECTION 5: Firefighting measures

5.3 Advice for firefighters

Special protective actions 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.

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. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and materials for containment and cleaning up

Small spill

: Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill

Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid contact during pregnancy or while nursing. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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SECTION 7: Handling and storage

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 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. Store locked up. 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.

Seveso Directive - Reporting thresholds

Danger criteria

| | Notification and MAPP threshold | Safety report threshold |
|----|---------------------------------|-------------------------|
| H1 | 5 tonne | 20 tonne |
| E1 | 100 tonne | 200 tonne |

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

solutions

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

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

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|-----------------------------|------|-------------------------|-------------------------|--------------------|----------|
| rosin | DNEL | Long term Oral | 1.0655 mg/ kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 1.0655 mg/ kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 2.131 mg/ kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 10 mg/m ³ | Workers | Local |
| tetrahydro-2-furyl-methanol | DNEL | Long term Oral | 0.175 mg/ | General | Systemic |

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SECTION 8: Exposure controls/personal protection

| | | kg bw/day | population | |
|------|------------------|---|--|---|
| DNEL | Long term | 0.25 mg/m ³ | General | Systemic |
| | Inhalation | | population | |
| DNEL | Long term Dermal | 0.5 mg/kg | General | Systemic |
| | | bw/day | population | |
| DNEL | Long term Dermal | 1 mg/kg | Workers | Systemic |
| | | bw/day | | |
| DNEL | Long term | 1.4 mg/m ³ | Workers | Systemic |
| | Inhalation | | | |
| | DNEL DNEL | DNEL Long term Dermal DNEL Long term DNEL Long term | DNEL Long term 0.25 mg/m³ Inhalation DNEL Long term Dermal 0.5 mg/kg bw/day DNEL Long term Dermal 1 mg/kg bw/day DNEL Long term 1.4 mg/m³ | DNEL Long term 0.25 mg/m³ General population DNEL Long term Dermal 0.5 mg/kg bw/day population DNEL Long term Dermal 1 mg/kg bw/day DNEL Long term 1.4 mg/m³ Workers |

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: 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.

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. Contaminated work clothing should not be allowed out of the workplace. 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: chemical splash goggles.

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.

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.

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.

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.

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SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Solid.

Color : Amber. [Light]
Odor : Typical rosin.
Odor threshold : Not available.
Melting point/freezing point : Not available.
Initial boiling point and : Not available.

boiling range

•

Flammability : Slightly flammable in the presence of the following materials or conditions: open

flames, sparks and static discharge.

Lower and upper explosion

limit

: Not applicable.

Flash point : Not applicable.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

pH : Not available.

Viscosity : Not applicable.

Solubility(ies) :

Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/ : Not applicable.

water

Vapor pressure : Not available.

Relative density : Not available.

Vapor density : Not applicable.

Explosive properties: Explosive in the presence of the following materials or conditions: open flames,

sparks and static discharge.

Oxidizing properties : Not available.

Particle characteristics

Median particle size : Not available.

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 : Under normal conditions of storage and use, hazardous reactions will not occur.hazardous reactions

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials: No specific data.

10.6 HazardousUnder normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------------------|-------------|---------|------------|----------|
| rosin | LD50 Oral | Rat | 7600 mg/kg | - |
| tetrahydro-2-furyl-methanol | LD50 Oral | Rat | 1600 mg/kg | - |
| 1,2,5,6,9,10-hexabromocyclododecane | LD50 Dermal | Rabbit | >20 mg/kg | - |
| | LD50 Oral | Rat | >10 mg/kg | - |
| dimethylammonium chloride | LD50 Oral | Mouse | 8100 mg/kg | - |
| | LD50 Oral | Rabbit | 1600 mg/kg | - |
| | LD50 Oral | Rat | 1070 mg/kg | - |
| | LD50 Oral | Rat | 1070 mg/kg | - |

Conclusion/Summary

: Not available.

Acute toxicity estimates

| Product/ingredient name | Oral (mg/ kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-------------------------------------|------------------|-------------------|--------------------------------|----------------------------------|--|
| FLUX RSA 601 | 177.6 | 10.9 | N/A | N/A | N/A |
| rosin | 7600 | N/A | N/A | N/A | N/A |
| tetrahydro-2-furyl-methanol | 1600 | N/A | N/A | N/A | N/A |
| 1,2,5,6,9,10-hexabromocyclododecane | 5 | 5 | N/A | N/A | N/A |
| dimethylammonium chloride | 1070 | N/A | N/A | N/A | N/A |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-----------------------------|--------------------------|---------|-------|-------------|-------------|
| tetrahydro-2-furyl-methanol | Eyes - Moderate irritant | Rabbit | - | 24 hours 20 | - |
| | | | | mg | |

Conclusion/Summary

Sensitization

: Not available.

Conclusion/Summary

: Not available.

Mutagenicity

Conclusion/Summary

: Not available.

Carcinogenicity

Conclusion/Summary

: Overexposure to fumes may cause irritation to the respiratory tract, digestive system and to the eyes. Repeated and prolonged contact with bare skin may cause an

allergic reaction (sensitization) in susceptible individuals.

Reproductive toxicity

Conclusion/Summary

: Not available.

Teratogenicity

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

: Not available.

Potential acute health effects

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SECTION 11: Toxicological information

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact: Fatal in contact with skin. May cause an allergic skin reaction.

Ingestion: Toxic if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

irritation redness

reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion: Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

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

Short term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary: Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

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

Reproductive toxicity: May damage the unborn child. Suspected of damaging fertility.

May cause harm to breast-fed children.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

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SECTION 11: Toxicological information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------------------|---|---|---------------------------------|
| 1,2,5,6,9,10-hexabromocyclododecane | Acute EC50 146.34 mg/l Fresh water Acute LC50 >100 mg/l Fresh water Chronic NOEC 3.1 μg/l Fresh water | Daphnia - Daphnia magna Fish - Lepomis macrochirus Daphnia - Daphnia magna - Neonate | 48 hours 96 hours 21 days |
| | Chronic NOEC 3.7 μg/l Fresh water | Fish - Oncorhynchus mykiss - Embryo | 61 days |

Conclusion/Summary: Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|---------------------------------|---------------------|-----|-------------|
| rosin dimethylammonium chloride | 1.9 to 7.7 -3.28 | - | high low |

12.4 Mobility in soil

Soil/water partition

: Not available.

coefficient (Koc)

Mobility

: Not available.

12.5 Results of PBT and vPvB assessment

| Product/ingredient name | PBT | Р | В | Т | vPvB | vP | vB |
|-------------------------------------|-----------|-----------|-----------|-----------|------|-----|-----|
| rosin | No | N/A | N/A | No | N/A | N/A | N/A |
| 1,2,5,6,9,10-hexabromocyclododecane | Annex XIV | Specified | Specified | Specified | N/A | N/A | N/A |
| | (Listed) | | | | | | |
| dimethylammonium chloride | No | N/A | N/A | No | N/A | N/A | N/A |

12.6 Endocrine disrupting properties

Not available.

12.7 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

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SECTION 13: Disposal considerations

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 or ID 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. |

14.6 Special precautions for

: **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 Maritime 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

| Intrinsic property | Ingredient name | | Reference number | Date of revision |
|--------------------|------------------------|--------|------------------|------------------|
| PBT | hexabromocyclododecane | Listed | 3 | 2/21/2011 |

Substances of very high concern

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SECTION 15: Regulatory information

| Intrinsic property | Ingredient name | | Reference number | Date of revision |
|--------------------|--|-------------|------------------|------------------|
| PBT | hexabromocyclododecane and all major diastereoisomers identified | Recommended | ED/67/2008 | 2/21/2011 |

Annex XVII - Restrictions

: Restricted to professional users.

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

Other EU regulations

Industrial emissions

: Not listed

(integrated pollution prevention and control) -

Air

Industrial emissions

: Not listed

(integrated pollution prevention and control) -

Water

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

| Annex | Ingredient name | Status |
|------------------|------------------------|------------------|
| Annex I - Part 3 | hexabromocyclododecane | Listed |
| Annex V | hexabromocyclododecane | Annex V - Part 1 |

Persistent Organic Pollutants

| Annex | Ingredient name | Status |
|------------------|------------------------|--------|
| Annex I - Part A | hexabromocyclododecane | Listed |
| Annex IV | hexabromocyclododecane | Listed |
| Annex V | hexabromocyclododecane | Listed |

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

| Category | |
|----------|--|
| H1 | |
| E1 | |

Rotterdam Convention on Prior Informed Consent (PIC)

| List name | Ingredient name | Status |
|-----------|--|--------|
| | hexabromocyclododecane; Dead sea bromine group standard FR 1206 I-LM; HBCD | 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.

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SECTION 16: Other information

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/20081

DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

Key literature references and sources for data

-ACGIH, Threshold Limit Values, 1994-1995. -Canada Gazette Part II, Vol. 122, No. 2 Registration SOR/88-64 31 December, 1987 Hazardous Products Act "Ingredient Disclosure List". -CFR29, OSHA's Permissible Exposure Limits, revision July, 1993. -CFR29, part 1910.1200, Hazard Communication. -Components' manufacturer's Material Safety Data Sheet. -CRC Handbook of chemistry and physics, 67 th edition, CRC Press inc., Boca Rota, Florida. -CSST (Comission de Santé et Sécurité au Travail), document #RT-12: Classification of Certain Chemical Substances. -NFPA, Fire Protection Guide to Chemical Hazards, 11th edition. -NIOSH, Pocket Guide to Chemical Hazards, revision June 1994. -TSCA (Toxic Substance Contral Act), Chemical Substance Inventory List, 1985. - IATA, Dangerous Goods Regulations, 37th edition (January 1, 1996) - LOLIPRO vol. 13, Environmental Health & Safety Series II, Micromedex Inc.

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

| Classification | Justification |
|-------------------------|--------------------|
| Acute Tox. 3, H301 | Calculation method |
| Acute Tox. 1, H310 | Calculation method |
| Eye Irrit. 2, H319 | Calculation method |
| Skin Sens. 1, H317 | Calculation method |
| Repr. 1B, H360Df | Calculation method |
| Lact., H362 | Calculation method |
| Aquatic Chronic 1, H410 | Calculation method |

Full text of abbreviated H statements

| H300 | Fatal if swallowed. |
|--------|---|
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H310 | Fatal in contact with skin. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H360Df | May damage the unborn child. Suspected of damaging fertility. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H362 | May cause harm to breast-fed children. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H413 | May cause long lasting harmful effects to aquatic life. |

Full text of classifications [CLP/GHS]

| Acute Tox. 1 | ACUTE TOXICITY - Category 1 |
|-------------------|---|
| Acute Tox. 2 | ACUTE TOXICITY - Category 2 |
| Acute Tox. 3 | ACUTE TOXICITY - Category 3 |
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Chronic 1 | AQUATIC HAZARD (LONG-TERM) - Category 1 |
| Aquatic Chronic 4 | AQUATIC HAZARD (LONG-TERM) - Category 4 |
| Eye Dam. 1 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 |
| Eye Irrit. 2 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 |
| Lact. | TOXIC TO REPRODUCTION - Effects on or via lactation |
| Repr. 1B | TOXIC TO REPRODUCTION - Category 1B |
| Repr. 2 | TOXIC TO REPRODUCTION - Category 2 |
| Skin Sens. 1 | SKIN SENSITIZATION - Category 1 |

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SECTION 16: Other information

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