

4. FIRST AID MEASURES

First aid measures

- 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.
- 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.
- Skin contact** : Flush contaminated skin with plenty of 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. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- 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.
- 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

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

5. FIRE-FIGHTING MEASURES

Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : No specific fire or explosion hazard.
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. This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
metal oxide/oxides
- 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.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : 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 (see Section 8).
- 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.
- Methods for cleaning up**
- Small spill** : Move containers from spill area. 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. 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. Dispose of via a licensed waste disposal contractor.

7. HANDLING AND STORAGE

Handling : Put on appropriate personal protective equipment (see Section 8). 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. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. Refer to special instructions/safety data sheet. 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.

Storage : Keep container tightly closed and sealed until ready for use.

Packaging materials

Recommended : Use original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values

Ingredient name	Occupational exposure limits
Copper	<p>ACGIH TLV (United States, 1/2009). TWA: 0.2 mg/m³ 8 hour(s). Form: Fume</p> <p>ACGIH TLV (United States, 1/2009). Notes: as Cu TWA: 1 mg/m³, (as Cu) 8 hour(s).</p>

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 European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.
--	--

Exposure controls

Occupational exposure 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.

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.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hand protection : Use chemical-resistant, impervious gloves.

Eye 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 or dusts

Skin 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.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance

Physical state : Solid.

Color : Copper.

Odor : wood rosin

Important health, safety and environmental information

Boiling point : 318°C (604.4°F)

Melting point : 1082.8°C (1981°F) This is based on data for the following ingredient: Copper.

Flash point : Closed cup: Not applicable.Open cup: Not applicable.

Explosive properties : Not considered to be a product presenting a risk of explosion.

Relative density : Only known value: 8.94 (Water = 1) (Copper).

10. STABILITY AND REACTIVITY

Stability	: The product is stable.
Conditions to avoid	: No specific data.
Materials to avoid	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Potential acute health effects

Inhalation	: May cause respiratory irritation. fumes
Ingestion	: No known significant effects or critical hazards.
Skin contact	: May cause slight transient irritation. May cause skin irritation.
Eye contact	: May cause eye irritation. fumes

Acute toxicity

Potential chronic health effects

Skin	: May cause sensitization by skin contact.
Eyes	: May cause mild eye irritation.
Respiratory	: May cause sensitization by inhalation. Inhalation of this material may cause sensitive individuals to develop eczema and/or asthma.

Chronic effects	: 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.
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.

Over-exposure signs/symptoms

Inhalation	: No specific data.
Ingestion	: No specific data.
Skin	: Adverse symptoms may include the following: irritation redness
Eyes	: No specific data.
Target organs	: Contains material which causes damage to the following organs: eye, lens or cornea. Contains material which may cause damage to the following organs: kidneys, liver, upper respiratory tract, skin.

12. ECOLOGICAL INFORMATION

Environmental effects	: Very toxic to aquatic organisms. Water polluting material. May be harmful to the environment if released in large quantities.
------------------------------	---

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Copper	-	Acute EC50 38 ug/L Fresh water	Crustaceans - Water flea - Chydorus sphaericus - Juvenile (Fledgling, Hatchling, Weanling) -	48 hours
	-	Acute EC50 33.4 ug/L Fresh water	Crustaceans - Water flea - Chydorus ovalis - Juvenile (Fledgling, Hatchling, Weanling) -	48 hours
	-	Acute EC50 20.2 ug/L Fresh water	Crustaceans - Water flea - Chydorus sphaericus - Juvenile (Fledgling, Hatchling, Weanling) -	48 hours
	-	Acute EC50 18.8 ug/L Fresh water	Crustaceans - Water flea - Simoecephalus vetulus - Juvenile	48 hours

12. ECOLOGICAL INFORMATION

		(Fledgling, Hatchling, Weanling) - <48 hours	
-	Acute EC50 18.4 ug/L Fresh water	Crustaceans - Water flea - Simocephalus vetulus - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
-	Acute EC50 16.1 ug/L Fresh water	Crustaceans - Water flea - Simocephalus vetulus - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
-	Acute EC50 14.1 ug/L Fresh water	Crustaceans - Water flea - Chydorus sphaericus - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
-	Acute EC50 9.89 ug/L Fresh water	Daphnia - Water flea - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
-	Acute EC50 9.2 ug/L Fresh water	Crustaceans - Water flea - Bosmina longirostris - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
-	Acute EC50 9 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours	48 hours
-	Acute EC50 6.5 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours - 2.5 mm	48 hours
-	Acute EC50 6 to 8 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours - 2.5 mm	48 hours
-	Acute EC50 4 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours - 2.5 mm	48 hours
-	Acute EC50 2.8 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours - 2.5 mm	48 hours
-	Acute EC50 2.2 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours - 2.5 mm	48 hours

Conclusion/Summary : Not available.
Biodegradability
 Conclusion/Summary : Not available.

12. ECOLOGICAL INFORMATION

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

13. DISPOSAL CONSIDERATIONS

Methods of disposal : Avoid contact of spilled material and runoff with soil and surface waterways. Dispose of according to all federal, state and local applicable regulations. Recycle, if possible.

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

14. TRANSPORT INFORMATION

International transport regulations

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	Not regulated.	-	-	-		-
ADN/ADNR Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		Marine pollutant Excepted Quantity
IATA Class	Not regulated.	-	-	-		-

PG* : Packing group

15. REGULATORY INFORMATION

EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Hazard symbol or symbols :



Irritant

Risk phrases : R42/43- May cause sensitization by inhalation and skin contact.

Safety phrases : S24- Avoid contact with skin.
S37- Wear suitable gloves.
S51- Use only in well-ventilated areas.

Contains : rosin

Product use : Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use. Industrial applications

Europe inventory : All components are listed or exempted.

16. OTHER INFORMATION

Full text of R-phrases referred to in sections 2 and 3 - Europe : R43- May cause sensitization by skin contact.
R50- Very toxic to aquatic organisms.

Full text of classifications referred to in sections 2 and 3 - Europe : N - Dangerous for the environment

History

Date of printing : 6/9/2011.

Date of issue/Date of revision : 6/9/2011.

Date of previous issue : No previous validation.

Version : 23

Prepared by : Not available.

☑ Indicates information that has changed from previously issued version.

Notice to reader

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.