

**SOVEREIGN CHEMICAL COMPANY**

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## Material Safety Data Sheet

### Ribetak 7530 Flake

#### 1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

<b>Manufacturer:</b> SI Group 1111 Avenue G. Washington Bethune-Cedex 62404, France	<b>Emergency Contact :</b> Chemtrec: 1-800-424-9300 (continental USA) (1)703-527-3887 (outside continental USA)
<b>Trade Name(s):</b> Ribetak 7530 Flake	<b>MSDS Number:</b> 1096
<b>Chemical Name:</b> Thermoreactive resin formed from the condensation reaction between an octyl phenol and formaldehyde	<b>Synonyms:</b> Octylphenol formaldehyde resin
<b>Prepared By:</b> Sovereign Chemical Company	<b>Date of Issue:</b> May 7, 2009 <b>Revision Number:</b> 9 (supersedes: June 7, 2005) <b>Change(s):</b> 3 year update

#### 2. INGREDIENTS

<u>Component</u>	<u>CAS #</u>	<u>Percent</u>	<u>ACGIH (TLV)</u>	<u>OSHA (PEL)</u>
thermoreactive resin, formed from the condensation reaction between an octyl phenol and formaldehyde	26678-93-3	> 96	NE	NE
p-t-octylphenol	140-66-9	< 5	NE	NE
Formaldehyde	50-00-0	< 100 ppm	1 ppm	NE

PEL and TLV values are reported as TWA unless otherwise noted.

THIS MATERIAL IS CLASSIFIED AS HAZARDOUS UNDER OSHA REGULATION.

#### 3. HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

Brown flakes. Use appropriate personal protective equipment. During fire situations, irritating and toxic gases such as phenol, formaldehyde and oxides of carbon may be generated. Keep from entering storm or sanitary sewers, ground water, or soil. Avoid contact with skin/eyes and inhalation of dust. High concentration of airborne dust may form explosive mixture with air. Ensure that good housekeeping practices are followed as well as applicable guidelines such as National Fire Protection Association {NFPA} 654, "Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids". Vapors may be heavier than air and may travel along the ground to some distance source of ignition and flash back.

**HMIS:** Health - 2; Fire - 1; Reactivity - 0; Protection - E\* (safety glasses, gloves)

\*This is recommended personal protection equipment, final personal protection equipment should be determined by the plant safety department based on the actual conditions under which the product is used.

### **Potential Health Effects:**

Please note this product may contain or release during processing, Formaldehyde. The potential health dangers presented are those associated with formaldehyde [per NTP – carcinogenicity reasonably anticipated per IARC – carcinogenic to humans per OSHA – potential cancer hazard]

**Eye:** May cause eye irritation.

**Skin Contact:** May cause irritation.

**Ingestion:** May cause gastrointestinal disturbance

**Inhalation:** May cause mucous membranes if exposure is prolonged.

**Carcinogenicity:** NTP - yes IARC - yes

Formaldehyde is listed by NTP as an anticipated human carcinogen. Formaldehyde is listed by IARC as a probable human carcinogen (Group 2B). This product contains < 100 ppm formaldehyde.

## **4. FIRST AID MEASURES**

**Skin:** Remove contaminated clothing and wash the exposed skin with large amounts of water. See a physician if irritation persists.

**Eye:** Immediately flush eyes with flowing water for at least 15 minutes. See a physician if irritation persists.

**Ingestion:** If the material is swallowed, get immediate medical attention or advice. If patient has good gag reflex, you can consider giving several ounces of water for dilution. Never give anything by mouth to a victim who is unconscious. Overexposure may cause nausea, vomiting, diarrhea, and/or gastritis.

**Inhalation:** Move person to non contaminated air. Give oxygen if breathing is difficult. If not breathing give artificial respiration, preferably mouth to mouth. Seek medical attention. Unexpected overexposure will cause respiratory tract irritation.

**Cardiovascular:** Overexposure may cause arrhythmia

**Central Nervous System:** Monitor for shock; anticipate seizures and treat accordingly.

## **5. FIRE FIGHTING MEASURES**

**Flash Point:** > 201°F (94°C) Tag Closed Cup      **LEL:** NE      **UEL:** NE      **Auto Ignition**

**Temperature:** NE

Use dry chemical, foam water fog, or carbon dioxide to extinguish fires. In the event of fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full face piece, operated in the positive pressure mode. Exclude air; treat like a gasoline or oil fire. During fire situations, irritating and toxic gases such as phenol, formaldehyde and oxides of carbon may be generated. Flakes present no special fire or explosion hazard; however, dust generated during handling or storage can create explosive mixtures in the air.

**Unsuitable Extinguishing Media:** Do not use a solid water stream as it may scatter and spread fire.

**Sensitivity to Static Discharge:** Material can accumulate static charges from material handling management. Bond and ground as appropriate. For additional recommendations, consult an applicable guideline such as NFPA 77, "Recommended Practices on Static Electricity."

The Minimum Ignition Energy for Phenolic resins can be as low as 3mJ (millijoules).

The minimum Explosive Concentration for phenolic resins can be as low as 0.25 oz/ft<sup>3</sup> or ~20 mg/ft<sup>3</sup>.

**General Fire Hazards:** High concentration of airborne dust may form explosive mixture with air. Ensure good housekeeping practices.

## **6. ACCIDENTAL RELEASE MEASURES**

Clean spills in a manner that does not disperse dust into the air, preferably a wet-down procedure or vacuum. Use non-sparking tools. Individuals involved in the cleanup should wear appropriate personal protective equipment. See Section 8. Unnecessary personnel should be kept clear of the area. Recovered material can be incinerated in a furnace where permitted, observing all local, state and federal regulations. Avoid contact with skin/eyes and inhalation of dust.

## **7. HANDLING AND STORAGE**

**Storage Conditions:** Do not store near acids, strong oxidizing agents open flames or at high temperatures. Store protected from heat, sun and weather. Keep original packaging away from humidity.

**Handling:** Good housekeeping and engineering practices should be employed to prevent the generation and accumulation of dusts. Avoid dispersion of dust into air to reduce potential explosion hazard. Eliminate ignition sources. Avoid contact with skin/eyes and inhalation of dust. Individuals handling this product should wear personal protective equipment specified in Section 8. Plant environment should include controls and equipment specified in Section 8.

## 8. EXPOSURE CONTROL - PERSONAL PROTECTION

**Engineering Controls:** Local exhaust ventilation should be provided. Design details for local exhaust ventilation systems may be found in the latest edition of "Industrial Ventilation: A Manual of Recommended Practices" published by the ACGIH Committee on Industrial Ventilation, P.O. Box 16153, Lansing, MI 48910. The need for local exhaust ventilation should be evaluated by a professional industrial hygienist. Local exhaust ventilation systems should be designed by a professional engineer.

**Respiratory Protection:** Wear a dust mask if exposure levels exceeds those specified in Section 2.

**Eye Protection:** Safety glasses with side shields are recommended for any type of handling. Dust-tight goggles are recommended for dusty operations of areas where vapors accumulate.

**Protection Gloves:** Gloves impervious to dust or vapor.

**Other Protection Items:** Neoprene or nitrile rubber coated apron or other body covering may be required if there is a possibility of regular work clothing becoming contaminated with the product. All soiled or dirty clothing and personal protective equipment should be thoroughly cleaned before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance/Physical State:</b> Yellow flakes	<b>Melt Point:</b> 80-95°C (176-203°F) (Ring & Ball Method)
<b>Vapor Density (Air = 1):</b> NA	<b>Octanol/Water Partition Coefficient:</b> log Pow 3.7
<b>Vapor Pressure:</b> Not applicable	<b>Evaporation Rate BuOAC = 1:</b> NA
<b>Odor:</b> None	<b>Specific Gravity:</b> 1.1
<b>% Volatile by Volume:</b> NA	<b>Boiling Point:</b> NA
<b>% Solubility (H<sub>2</sub>O):</b> Insoluble	<b>pH:</b> NA

## 10. STABILITY AND REACTIVITY

**Stability/Polymerization:** Stable at normal storage and handling temperatures.

**Incompatibility (conditions to avoid):** Avoid ignition sources where dust is produced.

**Hazardous Decomposition Products:** Upon decomposition this product emits carbon monoxide, carbon dioxide and/or low molecular hydrocarbons. Phenolic vapors may be released upon decomposition.

**Incompatible Materials:** Strong oxidizing agents; strong alkalis

**Special Sensitivity:** None that are known.

## 11. TOXICOLOGICAL INFORMATION

### OVERVIEW

While OSHA 29CFR 1910.1200 emphasizes the use of industrial-human-data for workplace hazard evaluations, relatively few materials have such data available as toxicological information is primarily obtained from tests conducted on, or with animals used as surrogates for humans. Therefore, the effects and symptoms represented and/or summarized may not reflect actual workplace exposures. All materials used in a given work area should be evaluated by a competent person who can then advise involved workers of health effects, or symptoms, if any, they may experience from their assigned tasks.

Data on this material and/or its components are summarized below.

### *Phenol, 4-(1, 1, 3, 3-tetramethylbutyl)-*

Single exposure (acute) studies indicate that this material is slightly toxic if swallowed (rat LD50 2160 – 4600 mg/kg) or absorbed through skin (rabbit LD50 1880 mg/kg), corrosive to rabbit eyes and severely irritating to rabbit skin.

Following repeated dietary administration, no significant adverse effects were observed in rats. Repeated application to the skin or oral administration caused depigmentation of the skin and hair in mice, rabbits and guinea pigs. Human volunteers exposed repeatedly exhibited depigmentation of the skin. This material did not

promote skin tumors in a two stage carcinogenic bioassay in mice. No genetic changes were observed in standard tests using bacteria.

#### *Formaldehyde*

Single exposure(acute) studies indicate that this material is slightly toxic if swallowed (rat LD50 3200 – 7500 mg/kg), practically non toxic if absorbed through skin ( rat & rabbit LD50 13500 – 17000 mg/kg) or inhaled (rat 4-hr LC50 21 mg/l) and moderately irritating to rabbit eyes. Repeated work place exposure causes severe skin, eye, and upper respiratory irritation, skin allergy, and increases asthma attacks in some individuals. Following repeated inhalation exposure, irritation and inflammation damage to the respiratory tract were noted in laboratory animals. Secondary target organ effects were also noted in several studies. Stomach lining damage was observed in rats following repeated oral exposure. This material is listed as a substance that may reasonably be anticipated to be “ carcinogenic” by the National Toxicology Program, is classified as “ probably carcinogenic to humans(2A) by the International Agency for Research on Cancer and is regulated by OSHA as carcinogen. However, a long term study of a large workplace population found no association between exposure to this material and cancer. Long term inhalation studies in rats and mice produced an increased incidence of nasal cavity tumors. No birth defects were noted in the offspring of laboratory animals, even at amounts which produced toxic effects on the mothers and their offspring. An increase in abnormal sperm was noted in rats following a single oral administration. Both positive

## **12. ECOLOGICAL INFORMATION**

Information for this material is not available. However, a limited ingredient, if available, is presented.

#### *Formaldehyde*

Terrestrial Fate: Biodegrades; low volatilization; leaches  
Aquatic fate: Biodegradable (48-72 hrs);low volatilization.  
Atmospheric fate: Photochemically degrades (half life – a few hours)

#### *Phenol, 4-(1, 1, 3, 3-tetramethylbutyl)-*

This material is highly toxic to fathead minnow (96hr EC50 0.09 – 0.14 mg/l) and Daphnia magna (48-hr EC50 0.27 mg/l). It is moderately toxic to shrimp (96-hr LC50 1.1 ppm) and fresh water algae (96-hr EC50 1.9 mg/l). Following long term exposure, it is highly toxic to rainbow trout (14-day LC50 0.12 mg/l) and Daphnia magna (21-day EC50 0.34 mg/l). The hatchability of rainbow trout eggs and fry growth were reduced at a test concentration of 0.022mg/l. the no observable effect was 0.0061 mg/l.

**Mobility:** The product is essentially insoluble in water.

## **Chemical Fate Information**

#### *Formaldehyde*

The theoretical oxygen demand (ThOD): 1.068  
5 day BOD (Sewage Seed): 60%  
5 day BOD (activated sludge) 47 – 99%

## **13. DISPOSAL CONSIDERATIONS**

Product, all product residues and packaging should be disposed of in an EPA approved incinerator or landfill in accordance with all local, state, and/or federal regulations.

This material will not be a RCRA hazardous waste if disposed as shipped.

#### **CERCLA/SARA – Hazardous Substances and their Reportable Quantities:**

FORMALDEHYDE 50-00-0 100 lb final RQ

#### **New York-Reporting of Release Part 597 – List of Hazardous Substances:**

FORMALDEHYDE 50-00-0 air RQ=100lbs. Land/Water RQ 1 lb

## **14. TRANSPORTATION INFORMATION**

**US DOT, Canada TDG, RID/ADR, IMDG, IATA:** Not regulated.

## **15. REGULATORY INFORMATION**

**SARA Hazard Classification:**

Immediate (Acute) Health: yes

Delayed (Chronic) Health: yes

Sudden Release of Pressure: no

Reactive: no

Fire: no

**CERCLA/RCRA:** FORMALDEHYDE 50-00-0 100 lbs final RQ

**Clean Air Act:** Not listed

**SARA Title III, Section 302:** This product contains formaldehyde, which is listed on the Extremely Hazardous Substance List, Section 302. Formaldehyde content is < 0.1%.

**SARA Title II, Section 313:** This product contains formaldehyde which is listed on the Toxic Chemical List, Section 313, Formaldehyde content is < 0.1%.

**SARA Reportable Quantities:** Formaldehyde 100lbs(CERCLA RQ), 500(SARA TPQ)

**California Proposition 65:** This product contains formaldehyde, which is listed on the California List of Known Carcinogens and Reproductive Toxins. Formaldehyde content is < 0.1%.

**TSCA Inventory Status:** All ingredients of this product are listed on the TSCA Inventory

**Canadian DSL:** All ingredients are listed.

**WHMIS Ratings:**D2A, D2B

**Canada-NPRI(National Pollutant Release Inventory):** Part 1 reporting required

## 16. OTHER INFORMATION

NE = Not Established

NA = Not Applicable

ND = Not Determined

**Information contained in this MSDS sheet have been gathered from the following documents:**

Ribetak 7530 MSDS, April 29,2005

Chemical REG-A-DEX, J.J.Keller,

WHMIS Compliance Manual, Carswell

Transportation of Dangerous Good, J.J.Keller,

Code of Federal Regulations, Transportation, 49 CFR Parts 100 to 185, October 2003

NIOSH Pocket Guide to Chemical Hazards,

ACGIH Threshold Limit Values,

HMIS Implementation Manual, 2nd Edition

Toxicity and Safe Handling of Rubber Chemicals, BRMA, 3rd Edition

ChemCheck Handbook, Specialty Technical Publishers,

IARC WEB site

NTP WEB site

**IMPORTANT SAFETY NOTICE:** The information in the Material Safety Data Sheet relates only to the specific material(s) described herein and does not relate to use in combination with any other material or substance or in any process. We believe that the information contained herein is current as of the date of issue of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of this product are not within the control of Sovereign Chemical Company, it is the user's obligation to determine the conditions of safe use of the product.

Users of this product should study this Material Safety Data Sheet and become aware of the product hazards and safety information before using the product. Users should also notify their employees, agents, and contractors of the information on this Material Safety Data Sheet and any product hazards and safety information in order to provide safe use of this product.

Sovereign Chemical Company  
1225 West Market Street  
Akron, OH 44313

Dear Customer:

Section 313 of SARA Title III (also known as the Emergency Planning and Community Right-to-Know Act, or EPCRA) require certain suppliers of mixtures or tradename products to notify their customers when such mixtures or tradename products contain chemicals listed in Section 313.

This letter constitutes a supplier notification that the following product you ordered contains one or more chemicals on the Section 313 list (\*) as noted below:

<b>Product Name:</b>	<b>Ribetak 7530</b>	
<b>Chemical Name (*)</b>	<b>CAS #</b>	<b>% Composition</b>
Formaldehyde	50-00-0	<100 ppm

In addition, an MSDS for this product is enclosed for your use.

If you are a distributor and you sell this product to another customer (s), you are required under Section 313 to furnish the same information and MSDS to that customer (s).

If you have any questions, please do not hesitate to contact the Technical Department at 330-869-0500.

Sovereign Chemical Company