Section 1. Product and Company Identification

Product Name Gum Rosin
CAS Number 8050-09-7

Parchem - fine & specialty chemicals
415 Huguenot Street
New Rochelle, NY 10801
(914) 654-6800 **(914) 654-6899**
parchem.com **info@parchem.com**

EMERGENCY RESPONSE NUMBER
CHEMTEL
Toll Free US & Canada: 1 (800) 255-3924
All other Origins: 1 (813) 248-0585
Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture
According to Regulation (EC) 1272/2008
Classified: Skin Sensitizer 1

GHS Label Elements

Pictograms:

Signal word: Warning

Hazard and precautionary statements
Hazard Statements: H317: May cause an allergic skin reaction.
Precautionary Statements - Prevention: P261: Avoid breathing dust/fume.
P272: Contaminated work clothing should not be allowed out of the workspace.
P280: Wear protective gloves/protective clothing.
Precautionary Statements - Response: P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P321: Specific treatment (see on this label).
P363: Wash contaminated clothing before reuse.
Precautionary Statements - Storage: None.
Precautionary Statements - Disposal: P501: Dispose of contents/container to a licensed landfill in accordance with local, state and federal regulations.

Classification according to Directive 67/548/EEC - Annex I and Regulation (EC) N° 1272/2008 - Annex VI

Xi: IRRITANT
Classified: Sensitization
Classified: Skin Sensitizer 1

Effects of Product
Adverse Effects on Human Health
R43: May cause sensitization by skin contact.
H317: May cause an allergic skin contact.

Section 3. Composition / Information on Ingredients

Common Name	Gum Rosin
CAS Number	8050-09-7

Section 4. First Aid Measures

First Aid Measures
Inhalation: Move exposed person to fresh air. Keep person warm and at rest. 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. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately.
Ingestion: Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. 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. Molten Product: Cool the affected area as soon as possible using water. Do not try to remove the product attached to the skin. This removal may severely damage the affected area. Apply an appropriate balsam for skin burns. Large damaged areas require proper medical care.
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 Aid Personnel: 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: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 5. Firefighting Measures

Flammability of the Product: Combustible solid that burns. Fine dust clouds may form explosive mixtures with air.

Extinguishing Media

Suitable: Use water spray or mist, dry chemical, foam or CO_2.

Not Suitable: Do not use water jet.

Special Exposure Hazards: 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.

Hazardous Thermal Decomposition Products: No specific data.

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.

Special Remarks on Explosion Hazards: Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). The ATEX Directive defines combustible powders as less than 500 microns in diameter. When processed with flammable liquids/vapors/mists, ignitable (hybrid) mixtures may be formed with combustible dusts. Ignitable mixtures will increase the rate of explosion pressure rise and the MIE will be lower than the pure dust in air mixture. The Lower Explosive Limit (LEL) of the vapor/dust mixture will be lower than the individual LELs for the vapors/mists or dusts. See NFPA 77 for additional guidance.

Section 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. Minimize airborne dust and eliminate all fire/ignition sources. Clean up spill as soon as possible using procedures described below. Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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).

Methods for Cleaning Up

Small Spill: Move containers from spill area. Do not use air hoses for cleaning. Minimize dry sweeping to avoid generation of dust clouds. Vacuum dust-accumulating surfaces and remove to a chemical disposal area. Use spark-proof tools and explosion-proof equipment. Vacuums with explosion-proof motors should be used. 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 creating dusty conditions and prevent wind dispersal. Do not use air hoses for cleaning. Minimize dry sweeping to avoid generation of dust clouds. Vacuum dust-accumulating surfaces and remove to a chemical disposal area. Use spark-proof tools and explosion-proof equipment. Vacuums with explosion-proof motors should be used. Dispose of via a licensed waste disposal contractor.

Section 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. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease 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 breathe dust. Do not ingest. 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.
Combustible Dust Handling Procedures: Combustible dusts at sufficient concentrations can form explosive mixtures with air. High dust concentrations should be avoided. Follow US NFPA Standard 654, "Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids," UK HSE Guidance HSG 103, approved Codes of Practice (ACOPS) established for Explosive Atmospheres under the ATEX Directive 1999/92/EC for worker protection and ATEX Directive 94/9/EC that regulates equipment and protection systems used in potentially explosive atmospheres or other national guidance on safe handling of combustible dusts. Train workers in the recognition and prevention of hazards associated with combustible dust in the plant. Minimize airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds. Use continuous suction at points of dust generation to capture and minimize the accumulation of dusts. Particular attention should be given to overhead and hidden horizontal surfaces to minimize the probability of a "secondary" explosion. According to NFPA Standard 654, dust layers 1/32 in (0.8 mm) thick can be sufficient to warrant immediate cleaning of the area.
Control sources of static electricity. This product or the package itself can accumulate static charges, and static discharge can be a source of ignition. Solids handling systems must be designed in accordance with applicable NFPA standards (including 654 and 77) and other national guidance. Do not empty directly into flammable solvents or in the presence of flammable vapors. The operator, the packaging container and all equipment must be grounded with electrical bonding and grounding systems. Plastic bags and plastics cannot be grounded, and antistatic bags do not completely protect

against development of static charges.
Storage: 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 away from heat, hot surfaces, sparks and flame. 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.

Section 8. Exposure Controls / Personal Protection

Control Parameters
Occupational Exposure Limits
UK. EH40 Workplace Exposure Limits (WELs): 0.15 mg/m^3/STEL/ Fume.
Biological Exposure Limits: No biological exposure limits noted for rosin.
DNEL: Not available.
PNEC: Not available.
Engineering Controls: Provide local exhaust and general ventilation systems to maintain airborne concentrations below OSHA, ACGIH, and manufacturer recommended exposure limits. Local exhaust ventilation is preferred because it prevents contaminant dispersion into work areas by controlling it at its source. Ventilation must be sufficient to effectively remove and prevent build-up of airborne dusts. Use electrically grounded, explosion-proof equipment for ventilation or any handling of this product.
Personal Protection
Eyes/Face Protection: Solid product: Wear side-shielded safety goggles.
Molten/Heated product: Wear face shield.
Skin Protection: Solid product: Wear impervious gloves and any work clothing (aprons or coveralls) to prevent skin contact.
Molten/heated product: Wear appropriate gloves and clothing to thermal contact.
Respiratory Protection: Solid product: Wear dust mask.
Molten product: Wear mask with filter to prevent organic vapors inhalation.

Section 9. Physical and Chemical Properties

Appearance: From pale yellow to amber solid at 25°C.
Odor: Rosin characteristic.
pH: Not applicable
Acid Number: 155 - 170 (mg KOH/g)
Melting/Freezing Point: 66.5 - 93.4°C range
Softening Point: 70 - 78 °C.
Boiling Point: Endpoint is waived.
Flash Point: Above 205°C.
Evaporation Rate: Approx. 0 (n-BuAc=1)
Flammability: Not flammable.
Upper/Lower Flammability or Explosive Limits: Not available
Vapor Pressure: 400 Pa at 124.5°C

Vapor Density: Not applicable.
Relative Density: 1.034 at 20°C.
Water Solubility: 0.9 mg/L at 20°C.
Partition Coefficient n-Octanol/Water (log value): Rosin is a UVCB and thus has a range of log Kow from 3.0 to 6.2.
Self-Ignition Temperature: Not applicable.
Decomposition Temperature: Not available.
Viscosity: Not applicable.
Explosive Properties: Non-explosive.
Oxidizing Properties: Non-oxidizing.
Dissociation Constant: Not applicable.
Stability in Organic Solvents and identity of relevant Degradation Products: Not applicable.
Molecular Weight: $C_{19}H_{29}COOH$.

Section 10. Stability and Reactivity

Chemical Stability: Product is stable in normal temperature and pressure conditions.
Reactivity: Do not present reactivity in contact with air or water.
Conditions to Avoid: Avoid contact with strong acids, alkalis, oxidizing agents, organic and inorganic peroxides. Avoid dispersion of dust in air. Avoid ignition sources where dust is produced.
Incompatibility: May react with strong oxidizing agents.
Hazardous Thermal Decomposition Products: Thermal decomposition may generate carbon monoxide, carbon dioxide and other unidentified organic compounds.

Section 11. Toxicological Information

Human Health Hazard Assessment
Acute Toxicity
Oral, Rat
LD50: 2800 mg/kg bw (male/female) based on: test mat.
Oral, Guinea Pig
LD50: > 1000 - < 2000 mg/kg bw (male/female) based on: test mat.
Oral, Rat, (Sprague-Dawley)
LD50: > 5000 - < 10000 mg/kg bw (female) based on: test mat.
LD50: > 7500 - < 10000 mg/kg bw (male) based on: test mat.
Dermal, Rat, (Sprague-Dawley)
LD50: > 2000 mg/kg bw (male) based on: test mat.
LD50: > 2000 mg/kg bw (female) based on: test mat.

Repeated Dose Toxicity: sub-Acute / sub-Chronic / Chronic - Oral
NOAEL: 600 mg/kg bw/day (subchronic; rat)
Mutagenicity in vitro / in vivo
Genetic toxicity: negative

Carcinogenicity
Gum Rosin is not classified for Carcinogenicity according to Directive 67/548/EEC.
Toxicity for Reproduction
Gum Rosin is not classified for "Reproductive Toxicity" according to Directive 67/548/EEC, UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS) or EU Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation (EC) No. 1272/2008.

Section 12. Ecological Information

Ecotoxicity
Fish, Acute Toxicity, Pimephales promelas
LL50 (96 h): > 1000 mg/L dissolved (nominal).
Daphnia sp., Acute Immobilization)
EL50 (48 h): 911 mg/L dissolved (nominal) based on: mobility.
Alga, Growth Inhibition, algae
EL50 (72 h): > 1000 mg/L dissolved (nominal) based on: growth rate.

Biodegradability
O.E.C.D. Test Guideline 301 B: Rosin is not Persistent. Level of biodegradation of approximately 89% after 28 days.
Bioaccumulative Potential: Rosin is not Bioaccumulative. QSAR estimation indicate that the BCF of rosin is 56.23 L/kgwwt. This is well below the Bioaccumulation criteria of 2000 L/kg.

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

International Transportation Regulations
Land Transport - ADR/RID: Not classified as Dangerous Goods.
Inland Waterway/Marine Transport - ADN/IMGD: Not classified as Dangerous Goods.
Air Transport - IATA/ICAO: Not classified as Dangerous Goods.

Section 15. Regulatory Information

All compounds of this product are in compliance with inventory listing requirements of the U. S. Toxic Substance Control Act (TSCA) - Chemical Substance Inventory, EINECS- Europe, DSL- Canada, ENCS- Japan, AICS- Australia, IECS-China, PICCS- Philippines, ECL- Korea.

Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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