1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Emergency Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sovereign Chemical Company</td>
<td>Chemtrec: 1-800-424-9300 (continental USA)</td>
</tr>
<tr>
<td>4040 Embassy Parkway, Suite 190 Akron, OH 44333</td>
<td>(1)703-527-3887 (outside continental USA)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trade Name(s): WW Gum Rosin Crushed</th>
<th>Synonyms: Gum rosin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Name: Gum rosin</td>
<td>CAS Number: 8050-09-7</td>
</tr>
</tbody>
</table>

Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.

Application of the substance/the preparation: Rubber compounding.

Issued By: Sovereign Chemical Company

According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

<table>
<thead>
<tr>
<th>SDS Number: 1111</th>
<th>Date of Issue: February 19, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision Number: 7 (supersedes: July 6, 2011)</td>
<td>Change(s): Revision to GHS requirement</td>
</tr>
</tbody>
</table>

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

GHS07
Skin Sens. 1 H317 May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Sensitizing
R43 May cause sensitization by skin contact.

Information concerning particular hazards for human and environment: Not applicable.

2.2 Label elements
Labeling according to Regulation (EC) No 1272/2008
The product is classified and labeled according to the CLP regulation.

Hazard pictograms

GHS07
Signal word: Warning
Hazard-determining components of labeling: Rosin.
Hazard statements
H317 May cause an allergic skin reaction.

Precautionary statements
P280 Wear protective gloves and eye protection.
P261 Avoid breathing dust.
Hazard description

WHMIS-symbols

D2B – Toxic material causing other toxic effects

NFPA ratings (scale 0-4)

Health = 1
Fire = 1
Reactivity = 0

HMIS ratings (scale 0-4)

Health = 1
Fire = 1
Reactivity = 0

HMIS Long Term Health Hazard Substances: Substance is not listed.

2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
CAS No., Description: 8050-09-7, Rosin
Identification number(s)
EC number: 232-475-7
Index number: 650-015-00-7

4. FIRST AID MEASURES

4.1 Description of first aid measures
General information: Immediately remove any clothing soiled by the product.
After inhalation
Supply fresh air; consult doctor in case of complaints.
In case of unconsciousness place patient stably in side position for transportation.
After skin contact
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
After eye contact
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed
   Allergic reactions
   Gastric or intestinal disorders.
   Hazards: No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed
   Treat skin and mucous membrane with antihistamine and corticoid preparations.
   In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media
   Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
   For safety reasons, unsuitable extinguishing agents: None.

5.2 Special hazards arising from the substance or mixture: No further relevant information available.

5.3 Advice for firefighters
   Protective equipment
   Wear self-contained respiratory protective device.
   Wear fully protective suit.
   Additional information: No further relevant information available.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
   Use respiratory protective device against the effects of fumes/dust/aerosol.
   Ensure adequate ventilation.
   Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up
   Pick up mechanically.
   Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections
   See Section 7 for information on safe handling.
   See Section 8 for information on personal protection equipment.
   See Section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
   Prevent formation of dust.
   Any unavoidable deposit of dust must be regularly removed.
   Information about fire and explosion protection: Dust can combine with air to form an explosive mixture.
7.2 Conditions for safe storage, including any incompatibilities

Storage
Requirements to be met by storerooms and receptacles: Avoid storage near extreme heat, ignition sources or open flame.
Information about storage in one common storage facility
   Store away from oxidizing agents.
   Store away from foodstuffs.
Further information about storage conditions: None.

7.3 Specific end use(s): No further relevant information available.

8.  EXPOSURE CONTROLS - PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TLV (USA)</th>
<th>EL (Canada)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8050-09-7 Rosin</td>
<td>SEN; L</td>
<td>S</td>
</tr>
</tbody>
</table>

DNELs: No further relevant information available.
PNECs: No further relevant information available.
Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment
General protective and hygienic measures
   The usual precautionary measures are to be adhered to when handling chemicals.
   Avoid contact with the eyes and skin.
   Immediately remove all soiled and contaminated clothing
   Wash hands before breaks and at the end of work.
Respiratory protection: Suitable respiratory protective device recommended.
Protection of hands

![Protective gloves]

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Material of gloves
   Neoprene gloves
   Nitrile rubber, NBR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer
Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection

![Safety glasses]
Body protection: Protective work clothing
Limitation and supervision of exposure into the environment:  No further relevant information available.
Risk management measures
  See Section 7 for additional information.
  No further relevant information available.

9.  PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
General Information

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Change in Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form:  Flakes.</td>
<td>Melting Point/Melting Range: Undetermined.</td>
</tr>
<tr>
<td>Odor threshold: Not determined.</td>
<td>pH value:  Not applicable.</td>
</tr>
<tr>
<td>Vapor pressure: Not applicable.</td>
<td>Flash point: 399 °F / 204 °C.</td>
</tr>
<tr>
<td>Density at 20 °C: 1.08 g/cm³</td>
<td>Flammability (solid, gaseous): Product is not flammable.</td>
</tr>
<tr>
<td>Relative density: Not determined.</td>
<td>Ignition temperature: Not determined.</td>
</tr>
<tr>
<td>Vapor density: Not applicable.</td>
<td>Decomposition temperature: Not determined.</td>
</tr>
<tr>
<td>Evaporation rate: Not applicable.</td>
<td>Self-igniting: Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water: Insoluble.</td>
<td>Danger of explosion: Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Explosion limits</td>
</tr>
<tr>
<td>Dynamic:  Not applicable.</td>
<td>Lower:  Not determined.</td>
</tr>
<tr>
<td>Kinematic:  Not applicable.</td>
<td>Upper:  Not determined.</td>
</tr>
</tbody>
</table>

9.2 Other information: No further relevant information available.

10.  STABILITY AND REACTIVITY

10.1 Reactivity

10.2 Chemical stability
Thermal decomposition / conditions to be avoided:  No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions
Reacts with oxidizing agents.
As the product is supplied it is not capable of dust explosion; however, enrichment with fine dust causes risk of dust explosion.

10.4 Conditions to avoid
  Keep away from heat and direct sunlight.
  Store away from oxidizing agents.

10.5 Incompatible materials:  No further relevant information available.
10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity
Primary irritant effect
   on the skin: Slight irritant effect on skin and mucous membranes.
   on the eye: Slight irritant effect on eyes.
Sensitization
   Sensitizing effect through inhalation is possible by prolonged exposure.
   Sensitization possible through skin contact.
Additional toxicological information: Danger through skin adsorption.
Sensitization: Sensitization possible by inhalation and/or dermal contact.
Repeated dose toxicity: Repeated exposures may result in skin and/or respiratory sensitivity.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability: No further relevant information available.

12.3 Bioaccumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.
Additional ecological information
General notes
   Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
   Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Recommendation
   Must not be disposed together with household garbage. Do not allow product to reach sewage system.
   Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
Uncleaned packaging
Recommendation: Disposal must be made according to official regulations.
14. TRANSPORTATION INFORMATION

14.1 UN-Number
DOT, ADR, ADN, IMDG, IATA  N/A

14.2 UN proper shipping name
DOT, ADR, ADN, IMDG, IATA  N/A

14.3 Transport hazard class(es)
DOT, ADR, ADN, IMDG, IATA  N/A

14.4 Packing group
DOT, ADR, IMDG, IATA  N/A

14.5 Environmental hazards
Marine pollutant  No

14.6 Special precautions for user  Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  Not applicable.
UN "Model Regulation"

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture United States (USA)

<table>
<thead>
<tr>
<th>Regulation / Legislation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA Section 355 (extremely hazardous substances)</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>SARA Section 313 (Specific toxic chemical listings)</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>TSCA (Toxic Substances Control Act)</td>
<td>Substance is listed.</td>
</tr>
<tr>
<td>Proposition 65 (California)</td>
<td></td>
</tr>
<tr>
<td>Chemicals known to cause cancer</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for females</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for males</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Chemicals known to cause developmental toxicity</td>
<td>Substance is not listed.</td>
</tr>
</tbody>
</table>

15.2 Carcinogenic Categories

<table>
<thead>
<tr>
<th>Agency</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA (Environmental Protection Agency)</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>IARC (International Agency for Research on Cancer)</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>TLV (Threshold Limit Value established by ACGIH)</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>NIOSH-Ca (National Institute for Occupational Safety and Health)</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>OSHA-Ca (Occupational Safety &amp; Health Administration)</td>
<td>Substance is not listed.</td>
</tr>
</tbody>
</table>

15.3 Canada

<table>
<thead>
<tr>
<th>List</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Domestic Substances List (DSL)</td>
<td>Substance is listed.</td>
</tr>
<tr>
<td>Canadian Ingredient Disclosure list (limit 0.1%)</td>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Canadian Ingredient Disclosure list (limit 1%)</td>
<td>Substance is not listed.</td>
</tr>
</tbody>
</table>

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.
16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- GHS: Globally Harmonized System of Classification and Labeling of Chemicals
- ACGIH: American Conference of Governmental Industrial Hygienists
- EINECS: European Inventory of Existing Commercial Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- WHMIS: Workplace Hazardous Materials Information System (Canada)
- DNEL: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)