Safety Data Sheet

Material Name: Hydrocarbon Resin
NEVROZ® 1850 Resin

**Section 1 – PRODUCT IDENTIFICATION**

Material Name:
Hydrocarbon Resin

Trade Name:
NEVROZ® 1850 Resin

Recommended Uses of Product and Restrictions
Identified Uses: coatings, inks
Uses Advised Against: None Known

Manufacturer Information
Neville Chemical Company
2800 Neville Road
Pittsburgh, PA 15225-1496
Phone: 412-331-4200
Emergency Phone #: 412-331-4200 or CHEMTREC at 800-424-9300
Fax: 412-777-4234

**Section 2 - HAZARD(S) IDENTIFICATION**

Classification in accordance with 29 CFR 1910.1200
Combustible Dust

GHS LABEL ELEMENTS
Symbol(s)
None needed according to classification criteria.

Signal Word
WARNING

Hazard Statement(s)
May form combustible dust concentrations in air

Precautionary Statement(s)

Prevention
None needed according to classification criteria.

Response
None needed according to classification criteria.
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Storage
None needed according to classification criteria.

Disposal
Dispose in accordance with all applicable regulations.

***Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS***

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>68131-38-4</td>
<td>Alkenes, ethylene-manuf.-by-product dicyclopentadiene-conc., polymers with ethylene-manuf.-by-product C5-cut alkene oligomers and tall oil, maleated</td>
<td>≥97.75</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Additive</td>
<td>≤2.0</td>
</tr>
<tr>
<td>128-37-0</td>
<td>Inhibitor (BHT)</td>
<td>0.25</td>
</tr>
</tbody>
</table>

Component Related Regulatory Information
This product may be regulated, have exposure limits or other information identified as the following: Naphtha,

Contaminants:
Naphthalene (91-20-3) is contained in most of our raw materials as a non reactive non intentional material. It has a relatively high boiling temperature (218 degrees C.) and has a great affinity for petroleum hydrocarbon resins and thus is very difficult to remove completely from the resins. This product typically contains less than 500 parts per million of naphthalene.

***Section 4 - FIRST-AID MEASURES***

Description of Necessary Measures

Inhalation
If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

Skin Contact
Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get immediate medical attention, if needed. Thoroughly clean and dry contaminated clothing before reuse.

Eye Contact
Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention

Ingestion
Call a Poison Center or doctor/physician if you feel unwell. Rinse mouth.
Material Name: Hydrocarbon Resin
NEVROZ® 1850 Resin

Most Important Symptoms/Effects

Acute
Mild skin irritation. No information on significant adverse effects.

Delayed
No information on significant adverse effects.

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed
Provide general supportive measures and treat symptomatically.

* * *Section 5 - FIRE-FIGHTING MEASURES* * *

Suitable Extinguishing Media
Dry chemical, carbon dioxide, foam, water spray

Unsuitable Extinguishing Media
Do not use high-pressure water streams.

Special Hazard Arising from the Chemical
WARNING!
Handling this material may create combustible dust which may be hazardous when finely divided and suspended in air. Combustible dust clouds can explode with destructive forces if ignited. combustible dust clouds can be ignited by all common ignition sources including static electricity. Follow recognized grounding and bonding procedures. Keep away from heat, hot surfaces, sparks and open flame. Use with adequate ventilation. Minimize dust accumulation on surfaces.


Fire Fighting Measures
Keep away from sources of ignition - No smoking. Avoid inhalation of material or combustion by-products. Move material from fire area if it can be done without risk. Use extinguishing agents appropriate for surrounding fire. Dike for later disposal. Stay upwind and keep out of low areas.

Special Protective Equipment and Precautions for Firefighters
Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

* * *Section 6 - ACCIDENTAL RELEASE MEASURES* * *

Personal Precautions, Protective Equipment and Emergency Procedures
Wear appropriate personal protective equipment recommended in Section 8 of the MSDS. Keep unnecessary people away, isolate hazard area and deny entry. Avoid contact with skin and eyes. Avoid release to the environment. Only personnel trained for the hazards of this material should perform clean up and disposal.
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Methods and Materials for Containment and Cleaning Up
Avoid generating dust. Use non-sparking tools and equipment. Keep unnecessary people away, isolate hazard area and deny entry. Absorb with sand or other non-combustible material. Keep out of water supplies and sewers. Collect spilled material in appropriate container for disposal. Do not allow to enter into ground-water, surface water or drains.

Environmental Precautions
Avoid generating dust. Avoid release to the environment.

** *Section 7 - HANDLING AND STORAGE* **

Precautions for Safe Handling
Do not handle until all safety precautions have been read and understood. Keep away from all ignition sources. Do not breathe dust. Use methods to minimize dust. Avoid contact with skin and eyes. Do not eat, drink, or smoke when using this product. Always wear recommended personal protective equipment. Wear personal protective clothing and equipment, see Section 8. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Take precautionary measures against static discharge. Dissipate static electricity during transfer by earthing (grounding and bonding) containers and equipment.

Conditions for Safe Storage, including any Incompatibilities
Store in a cool, dry place. Store in a well-ventilated area. Avoid contact with molten material. Keep separated from incompatible substances. Keep container tightly closed. Empty containers may contain product residue. Do not reuse empty containers without commercial cleaning or reconditioning. Store and handle in accordance with all current regulations and standards.

Incompatibilities: strong oxidizing materials

** *Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION* **

Component Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Naphthalene</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>10 ppm TWA</td>
</tr>
<tr>
<td></td>
<td>15 ppm STEL</td>
</tr>
<tr>
<td></td>
<td>Skin - potential significant contribution to overall exposure by the cutaneous route</td>
</tr>
<tr>
<td>NIOSH</td>
<td>10 ppm TWA; 50 mg/m³ TWA</td>
</tr>
<tr>
<td></td>
<td>15 ppm STEL; 75 mg/m³ STEL</td>
</tr>
<tr>
<td></td>
<td>250 ppm IDLH</td>
</tr>
<tr>
<td>Europe</td>
<td>10 ppm TWA; 50 mg/m³ TWA</td>
</tr>
<tr>
<td>OSHA (US)</td>
<td>10 ppm TWA; 50 mg/m³ TWA</td>
</tr>
<tr>
<td>Mexico</td>
<td>10 ppm TWA LMPE-PPT; 50 mg/m³ TWA LMPE-PPT</td>
</tr>
<tr>
<td></td>
<td>15 ppm STEL [LMPE-CT]; 75 mg/m³ STEL [LMPE-CT]</td>
</tr>
</tbody>
</table>
Material Name: Hydrocarbon Resin
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Component Exposure Limits

<table>
<thead>
<tr>
<th>Resin</th>
<th>Petroleum Hydrocarbon Resin inhalable &amp; respirable particles &amp; dust</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH:</td>
<td>10 mg/m³ TWA (inhaled particles, recommended);</td>
</tr>
<tr>
<td></td>
<td>3 mg/m³ TWA (respirable particles, recommended),</td>
</tr>
<tr>
<td></td>
<td>related to Particulates not otherwise classified (PNOC))</td>
</tr>
<tr>
<td>OSHA:</td>
<td>10 mg/m³ TWA (total dust);</td>
</tr>
<tr>
<td></td>
<td>5 mg/m³ TWA (respirable dust)</td>
</tr>
<tr>
<td></td>
<td>(respirable fraction, related to Particulates not otherwise classified (PNOC))</td>
</tr>
</tbody>
</table>

Biological limit value
There are no biological limit values for any of this product's components.

Appropriate Engineering Controls
Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Individual Protection Measures, such as Personal Protective Equipment

Eyes/Face Protection
Wear splash resistant safety goggles with a face shield.

Skin Protection
Wear appropriate chemical resistant clothing.

Glove Recommendations
Wear appropriate chemical resistant gloves. Recommended material: cotton, leather, rubber, neoprene.

Respiratory Protection
A NIOSH approved respirator with organic vapor cartridges and N95 filters may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure.
**Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Flakes / Pastilles</td>
</tr>
<tr>
<td>Color</td>
<td>Amber</td>
</tr>
<tr>
<td>Odor</td>
<td>Petroleum odor</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Softening Point</td>
<td>155 ±10</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Molecular Weight (Mn)</td>
<td>800 – 850</td>
</tr>
<tr>
<td>Specific Gravity (water = 1)</td>
<td>Approx. 1.08 @ 25°C</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>OSHA Flammability Class</td>
<td>Combustible Solid</td>
</tr>
<tr>
<td>Minimum Explosive Concentration</td>
<td>10 to 20 g/m3 (MEC)</td>
</tr>
<tr>
<td>KSt-value (bar x m/s)</td>
<td>282 – 344 bar.m/s</td>
</tr>
<tr>
<td>Auto Ignition Temperature</td>
<td>360 ºC (Approx.)</td>
</tr>
<tr>
<td>Vapor Density (air = 1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point Range</td>
<td>Not Available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>KOC</td>
<td>Not available</td>
</tr>
<tr>
<td>Log KOW</td>
<td>Not available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Not available</td>
</tr>
<tr>
<td>Coeff. Water/Oil Dist</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Taste</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**Section 10 - STABILITY AND REACTIVITY**

Reactivity
None known.

Chemical Stability
Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions
Hazardous polymerization will not occur.

Conditions to Avoid
Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

Incompatible Materials
Oxidizing materials, combustible materials

Hazardous decomposition products
Oxides of carbon, carbon monoxide, hydrocarbons
**Section 11 - TOXICOLOGICAL INFORMATION**

Acute and Chronic Toxicity

**Component Analysis - LD50/LC50**

The components of this material have been reviewed in various sources and the following selected endpoints are published:
- Naphthalene (91-20-3)
- Oral LD50 Rat 1110 mg/kg
- Dermal LD50 Rabbit 1120 mg/kg
- Inhalation LC50 Rat >340 mg/m³ 1 h

**Information on Likely Routes of Exposure**

**Inhalation**
Inhalation of dust may irritate upper respiratory tract

**Ingestion**
No information on significant adverse effects.

**Skin Contact**
May cause irritation

**Eye Contact**
Causes eye irritation

**Immediate Effects**
No information on significant adverse effects.

**Delayed Effects**
No information on significant adverse effects.

**Medical Conditions Aggravated by Exposure**
No information on significant adverse effects.

**Irritation/Corrosivity Data**
- Eye irritation; Mild skin irritation

**Respiratory Sensitization**
No data available.

**Dermal Sensitization**
No data available.

**Germ Cell Mutagenicity**
No data available.
Carcinogenicity

Component Carcinogenicity

<table>
<thead>
<tr>
<th>CAS # 91-20-3</th>
<th>Naphthalene</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH:</td>
<td>A4 - Not Classifiable as a Human Carcinogen</td>
</tr>
<tr>
<td>IARC:</td>
<td>Monograph 53 [1991] (related to Non-arsenical insecticides) (Group 2A (probably carcinogenic to humans))</td>
</tr>
<tr>
<td>IARC:</td>
<td>Monograph 82 [2002] (Group 2B (possibly carcinogenic to humans ))</td>
</tr>
<tr>
<td>NTP:</td>
<td>Reasonably Anticipated to be a Human Carcinogen</td>
</tr>
<tr>
<td>DFG:</td>
<td>Category 2 (considered to be carcinogenic for man)</td>
</tr>
<tr>
<td>OSHA:</td>
<td>Present</td>
</tr>
</tbody>
</table>

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

No data available.

Specific Target Organ Toxicity - Repeated Exposure

No data available.

Aspiration hazard

No data available.

**Section 12 - ECOLOGICAL INFORMATION**

Ecotoxicity

May be harmful to aquatic life.

Persistence and Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility in Soil

No information available for the product.

Other Adverse Effects

No information available for this product
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Material Name: Hydrocarbon Resin
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Component Analysis - Aquatic Toxicity

<table>
<thead>
<tr>
<th>CAS # 91-20-3</th>
<th>Naphthalene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish:</td>
<td></td>
</tr>
<tr>
<td>LC50 96 h Pimephales promelas 5.74 – 6.44 mg/L [flow-through];</td>
<td></td>
</tr>
<tr>
<td>LC50 96 h Oncorhynchus mykiss 1.6 mg/L [flow-through];</td>
<td></td>
</tr>
<tr>
<td>LC50 96 h Oncorhynchus mykiss 0.91 – 2.82 mg/L [static];</td>
<td></td>
</tr>
<tr>
<td>LC50 96 h Pimephales promelas 1.99 mg/L [static];</td>
<td></td>
</tr>
<tr>
<td>LC50 96 h Lepomis macrochirus 31.0265 mg/L [static]</td>
<td></td>
</tr>
<tr>
<td>Invertebrate:</td>
<td></td>
</tr>
<tr>
<td>EC50 48 h Daphnia magna 2.16 mg/L IUCLID;</td>
<td></td>
</tr>
<tr>
<td>EC50 48 h Daphnia magna 1.96 mg/L [flow-through] EPA;</td>
<td></td>
</tr>
<tr>
<td>EC50 48 h Daphnia magna 1.09 – 3.4 mg/L [static] EPA;</td>
<td></td>
</tr>
</tbody>
</table>

** **Section 13 - DISPOSAL CONSIDERATIONS** **

Disposal Methods
Dispose of contents/container in accordance with local/regional/national/international regulations.

Disposal of Contaminated Packaging
Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

** **Section 14 - TRANSPORT INFORMATION** **

US DOT Information
Shipping Name: Not regulated for transport
UN/NA #: Not Regulated

TDG Information
Shipping Name: Not regulated for transport
UN#: Not Regulated

** **Section 15 - REGULATORY INFORMATION** **

U.S. Federal Regulations
This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
</tr>
<tr>
<td>SARA 313</td>
<td>0.1% de minimis concentration</td>
</tr>
<tr>
<td>CERCLA</td>
<td>100 lb final RQ; 45.4 Kg final RQ</td>
</tr>
</tbody>
</table>

SARA Section 311/312 (40 CFR 370 Subparts B and C)
Acute Health: No, Chronic Health: Yes, Fire: No, Pressure: No, Reactive: No
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NEVROZ® 1850 Resin

U.S. State Regulations
The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhibitor (BHT)</td>
<td>128-37-0</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Naphthalene 91-20-3
Carc: Carcinogen, initial date 4/19/02

Canada Regulations
This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by the CPR.

Canadian WHMIS Ingredient Disclosure List (IDL)
Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on SDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL:

Naphthalene 91-20-3
Carc: 1 %

Canadian WHMIS Information
WHMIS CLASSIFICATION: Not classified.

Component Analysis - Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>US</th>
<th>CA</th>
<th>EU</th>
<th>AU</th>
<th>PH</th>
<th>JP</th>
<th>KR</th>
<th>CN</th>
<th>NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Hydrocarbon Resin</td>
<td>68131-38-4</td>
<td>Yes</td>
<td>DSL</td>
<td>Yes**</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Inhibitor (BHT)</td>
<td>128-37-0</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
**Section 16 - OTHER INFORMATION**

**NFPA Ratings:**
- Health: 1  Fire: 1  Reactivity: 0
- Hazard Scale: 0 = Minimal  1 = Slight  2 = Moderate  3 = Serious  4 = Severe

**HMIS RATINGS:**
- Health: 1
- Fire: 1
- Reactivity: 0
- Pers. Prot.: B Minimum

Hazard Scale: 0 = Minimal  1 = Slight  2 = Moderate  3 = Serious  4 = Severe   * = Chronic hazard

**Key / Legend**
- ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

**Other Information**
Reasonable care has been taken in the preparation of this information; however, the manufacturer makes no warranty whatsoever including the warranty of merchantability, expressed or implied, with respect to this information.