SAFETY DATA SHEET

1. Identification

Product identifier Chockfast Red SG Resin
Other means of identification SKU# GP109R
Recommended use Not available.
Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name ITW Performance Polymers
Address 130 Commerce Drive
Montgomeryville, PA 18936
United States
Telephone Customer Service 215-855-8450
Website www.itwperformancepolymers.com
E-mail Not available.
Contact person EHS Department
Emergency phone number CHEMTREC 800-424-9300
International 703-527-3887

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Acute toxicity, oral Category 4
Acute toxicity, inhalation Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2
Sensitization, skin Category 1

Environmental hazards Hazardous to the aquatic environment, Category 2
long-term hazard

OSHA defined hazards Not classified.

Label elements

Signal word Warning
Hazard statement Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. Toxic to aquatic life with long lasting effects.
Precautionary statement Prevention Avoid breathing mist/vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear eye protection/face protection. Wear protective gloves.
Response If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Collect spillage.
Storage Store away from incompatible materials.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

93.06% of the mixture consists of component(s) of unknown acute oral toxicity. 93.06% of the mixture consists of component(s) of unknown acute dermal toxicity. 100% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 22.57% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epoxy Resin:--reaction Product Of Bisphenol A And Epichlorohydrin (refer To Epichlorohydrin)</td>
<td></td>
<td>25068-38-6</td>
<td>60 - 100</td>
</tr>
<tr>
<td>Cyclic ester</td>
<td></td>
<td>14228-73-0</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Butyrolactone</td>
<td></td>
<td>96-48-0</td>
<td>5 - 10</td>
</tr>
</tbody>
</table>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

**Inhalation**
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a poison center or doctor/physician if you feel unwell.

**Skin contact**
Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

**Eye contact**
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Ingestion**
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

**Suitable extinguishing media**
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**
During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions**
Move containers from fire area if you can do so without risk.

**Specific methods**
Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**
No unusual fire or explosion hazards noted.

6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up

Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling

Do not taste or swallow. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid discharge into drains, water courses or onto the ground.

Conditions for safe storage, including any incompatibilities

Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection

Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection

Wear appropriate chemical resistant gloves.

Hand protection

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Other

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Liquid.

Physical state

Liquid.

Form

Liquid.

Color

Not available.

Odor

Slight.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

> 400 °F (> 204.4 °C)

Flash point

> 400.0 °F (> 204.4 °C)

Evaporation rate

< 1 BuAc

Flammability (solid, gas)

Not applicable.
Upper/lower flammability or explosive limits

- Flammability limit - lower (%): Not available.
- Flammability limit - upper (%): Not available.
- Explosive limit - lower (%): Not available.
- Explosive limit - upper (%): Not available.

Vapor pressure: 0.18 hPa estimated
Vapor density: < 1
Relative density: Not available.

Solubility(ies):
- Solubility (water): Not available.
- Partition coefficient (n-octanol/water): Not available.

Auto-ignition temperature: 851 °F (455 °C) estimated
Decomposition temperature: Not available.
Viscosity: Not available.

Other information:
- Density: 1.16 lb/gal
- Explosive properties: Not explosive.
- Flammability class: Combustible IIIB estimated
- Oxidizing properties: Not oxidizing.
- Specific gravity: 1.16

10. Stability and reactivity

- Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.
- Chemical stability: Material is stable under normal conditions.
- Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.
- Conditions to avoid: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
- Incompatible materials: Strong oxidizing agents.
- Hazardous decomposition products: No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure:
- Inhalation: Harmful if inhaled.
- Skin contact: Causes skin irritation. May cause an allergic skin reaction.
- Eye contact: Causes serious eye irritation.
- Ingestion: Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics:
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects:
Acute toxicity: Harmful if inhaled. Harmful if swallowed.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butyrolactone (CAS 96-48-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Guinea pig</td>
<td>5640 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Rat</td>
<td>&gt; 2.68 mg/l, 4 Hours</td>
</tr>
<tr>
<td>LC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Components</td>
<td>Species</td>
<td>Test Results</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Oral LD50</td>
<td>Rat</td>
<td>1540 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation Causes skin irritation.
Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization
- Respiratory sensitization Not a respiratory sensitizer.
- Skin sensitization May cause an allergic skin reaction.
- Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity
- Butyrolactone (CAS 96-48-0) Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)
- Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens
- Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure Not classified.
Specific target organ toxicity - repeated exposure Not classified.
Aspiration hazard Not an aspiration hazard.

12. Ecological information
Ecotoxicity Toxic to aquatic life with long lasting effects.
Persistence and degradability No data is available on the degradability of any ingredients in the mixture.
Bioaccumulative potential
- Partition coefficient n-octanol / water (log Kow) Butyrolactone -0.64
- Mobility in soil No data available.
- Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations
Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations Dispose in accordance with all applicable regulations.
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information
DOT Not regulated as dangerous goods.
IATA
- UN number UN3082
- UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin:-reaction Product Of Bisphenol A And Epichlorohydrin (refer To Epichlorohydrin))
Transport hazard class(es)
  Class  9
  Subsidiary risk  -
Packing group  III
Environmental hazards  No.
ERG Code  9L
Special precautions for user  Read safety instructions, SDS and emergency procedures before handling.
Other information
  Passenger and cargo aircraft  Allowed with restrictions.
  Cargo aircraft only  Allowed with restrictions.
IMDG
UN number  UN3082
UN proper shipping name  Environmentally hazardous substances, liquid, n.o.s. (Epoxy Resin:--reaction Product Of Bisphenol A And Epichlorohydrin (refer To Epichlorohydrin)), MARINE POLLUTANT
Transport hazard class(es)
  Class  9
  Subsidiary risk  -
  Label(s)  9
Packing group  III
Environmental hazards
  Marine pollutant  Yes
EmS  Not available.
Special precautions for user  Read safety instructions, SDS and emergency procedures before handling.
Not established.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
IATA; IMDG

Marine pollutant

General information
IMDG Regulated Marine Pollutant.

15. Regulatory information
US federal regulations
  This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
  TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
    Not regulated.
  CERCLA Hazardous Substance List (40 CFR 302.4)
    Not listed.
SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance
Not listed.

- **Classified hazard categories**
  - Acute toxicity (any route of exposure)
  - Skin corrosion or irritation
  - Serious eye damage or eye irritation
  - Respiratory or skin sensitization

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
Not regulated.

- **Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**
  - Butyrolactone (CAS 96-48-0) 70 %WV

- **DEA Exempt Chemical Mixtures Code Number**
  - Butyrolactone (CAS 96-48-0) 2011

US state regulations
California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Taiwan Chemical Substance Inventory (TCSI)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*"A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s)."

16. Other information, including date of preparation or last revision

- **Issue date** 06-20-2013
- **Revision date** 05-29-2018
- **Version #** 05
- **HMIS® ratings**
  - Health: 2
  - Flammability: 1
  - Physical hazard: 1

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Material name: Chockfast Red SG Resin
GP109R Version #: 05 Revision date: 05-29-2018 Issue date: 06-20-2013
NFPA ratings

Health: 2
Flammability: 1
Instability: 1

Disclaimer

ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.