SAFETY DATA SHEET

1. IDENTIFICATION

Product Name: BR® 6747-1 Water Based Primer, 20-40% Solids
Synonyms: None
Chemical Family: Modified Epoxy
Molecular Formula: Mixture
Molecular Weight: Mixture
Intended/Recommended Use: Primer

CYTEC INDUSTRIES INC., FIVE GARRET MOUNTAIN PLAZA, WOODLAND PARK, NEW JERSEY 07424, USA
For Product and all Non-Emergency Information call 1-800/652-6013. Outside the USA and Canada call 1-973/357-3193.

EMERGENCY PHONE (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:
Asia Pacific:
   Australia - +61-3-9663-2130 or 1800-033-111
   China (PRC) - +86 10 5100 3039 (Carechem24 China)
   New Guinea - +61-3-9663-2130
   New Zealand - +61-3-9663-2130 or 0800-734-607
   All Others - +65 3158 1074 (Carechem24 Singapore)
Canada: +1-905-356-8310 (Cytec Welland, Canada plant)
Europe/Africa/Middle East (Carechem24 UK):
   Europe, Middle East, Africa, Israel - +44 (0) 1235 239 670
   Middle East, Africa (Arabic speaking countries) - +44 (0) 1235 239 671
Latin America:
   Brazil - 0800 0111 767 (SOS Cotec)
   Chile - +56-2-247-3600 (CITUC QUIMICO)
   All Others - +52-376-73 74122 (Cytec Atequiza, Mexico plant)
USA: +1-703-527-3887 or 1-800-424-9300 (CHEMTREC #CCN5093)

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2. HAZARDS IDENTIFICATION

GHS Classification
Carcinogenicity Hazard Category 1B
Skin Corrosion / Irritation Hazard Category 2
Serious Eye Damage / Eye Irritation Hazard Category 2A
Skin Sensitizer Hazard Category 1B
Aquatic Environment Acute Hazard Category 2
Aquatic Environment Chronic Hazard Category 2

LABEL ELEMENTS

[Diagram of safety symbols: skull and crossbones, exclamation mark, tree]
3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Component / CAS No.</th>
<th>%</th>
<th>GHS Classification</th>
<th>Carcinogen</th>
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</thead>
<tbody>
<tr>
<td>Poly(aromatic glycidyl ether) #2</td>
<td>5 - 10</td>
<td>Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Skin Sens. 1B (H317) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411)</td>
<td>-</td>
</tr>
<tr>
<td>Aromatic amine</td>
<td>1 - 5</td>
<td>Acute Tox. 4 (H302)</td>
<td>-</td>
</tr>
<tr>
<td>Phenolic epoxy resin #1</td>
<td>1 - 5</td>
<td>Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Skin Sens. 1B (H317) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411)</td>
<td>-</td>
</tr>
<tr>
<td>Modified phenolic epoxy resin</td>
<td>1 - 5</td>
<td>Eye Irrit. 2A (H319) Skin Sens. 1B (H317)</td>
<td>-</td>
</tr>
<tr>
<td>Strontium chromate 7789-06-2</td>
<td>1 - 5</td>
<td>Carc. 1B (H350) Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) IARC 1 NTP ACGIH A2</td>
<td>-</td>
</tr>
</tbody>
</table>
The specific chemical identity and/or exact percentage of composition for one or more ingredients has been withheld as a trade secret.

Additional GHS classification or other information may be included in this section but has not been adopted by OSHA. See Section 16 for full text of H phrases.

4. FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

Eye Contact:
Rinse immediately with plenty of water for at least 15 minutes. Obtain medical advice if there are persistent symptoms.

Skin Contact:
Flush with a continuous flow of lukewarm water for 20 minutes or until material is removed. Wash with plenty of water and soap. Remove contaminated clothing and shoes without delay. Obtain medical attention if symptoms persist. Do not reuse contaminated clothing without laundering. Destroy or thoroughly clean shoes before reuse.

Ingestion:
If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Inhalation:
Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

None known

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDS

Not applicable

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:
Use water spray or fog, carbon dioxide or dry chemical.

Protective Equipment:
Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

Special Hazards:
Keep containers cool by spraying with water if exposed to fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:
Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

Methods For Cleaning Up:
Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.
References to other sections:
See Sections 8 and 13 for additional information.

7. HANDLING AND STORAGE

HANDLING

Precautions: Avoid release to the environment. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing vapors or spray mist. Wear protective gloves and eye/face protection.

Special Handling Statements: None

STORAGE

None

Storage Temperature: Store at 21 °C 70 °F
Reason: Quality.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:
Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure when spraying or curing at elevated temperatures.

Respiratory Protection:
Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure. A full facepiece respirator also provides eye and face protection. Cutting, grinding or sanding of parts fabricated after curing may create respirable dust particles. Respiratory protection appropriate for this dust may be required. Refer to components listed above for potential hazardous components in the dust.

Eye Protection:
Wear eye/face protection such as chemical splash proof goggles or face shield. Eyewash equipment and safety shower should be provided in areas of potential exposure.

Skin Protection:
Avoid skin contact. Wear impermeable gloves and suitable protective clothing. Barrier creams may be used in conjunction with the gloves to provide additional skin protection.

Hand Protection:
Wear impermeable gloves. Consider the porosity and elasticity data of the glove manufacturer and the specific conditions in the work place. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Additional Advice:
Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water. It is recommended that a shower be taken after completion of workshift especially if significant contact has occurred. Work clothing should then be laundered prior to reuse. Street clothing should be stored separately from work clothing and protective equipment. Work clothing and shoes should not be taken home.

Exposure Limit(s)
7789-06-2 Strontium chromate

OSHA (PEL): 5 μg/m³ (TWA) (as Chromium(VI) compounds)
0.1 mg/m³ (Ceiling) (as Chromates)
5 μg/m³ TWA (as Chromium(VI) compounds)
2.5 μg/m³ Action Level

ACGIH (TLV): 0.0005 mg/m³ as Cr (TWA)
Other Value: Not established

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: yellow
Appearance: liquid
Odor: slight amine
Boiling Point: 100 °C 212 °F (value for water)
Melting Point: Not applicable
Vapor Pressure: Similar to water
Specific Gravity/Density: 1.05g/cc
Vapor Density: Similar to water
Percent Volatile (% by wt.): Not available
pH: Not available
Saturation In Air (% By Vol.): Not available
Evaporation Rate: Similar to water
Solubility In Water: dispersible
Volatile Organic Content: gm/L Not available
Flash Point: >93.3 °C 200 °F Pensky-Martens Closed Cup
Flammable Limits (% By Vol.): Not applicable
Autoignition Temperature: Not applicable
Decomposition Temperature: Not available
Partition coefficient (n-octanol/water): Not available
Odor Threshold: Not available
Viscosity (Kinematic): Not available

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions To Avoid: None known

Polymerization: May occur

Conditions To Avoid: None known

Materials To Avoid: Oxidizing agents
Acids
Amines
Bases
Mercaptans

Hazardous Decomposition Products:
Ammonia (NH3)
oxides of carbon
oxides of nitrogen
phenolics
11. TOXICOLOGICAL INFORMATION

PRODUCT TOXICITY INFORMATION

Likely Routes of Exposure: Eyes, Skin, Oral.

ACUTE TOXICITY DATA

<table>
<thead>
<tr>
<th>Route</th>
<th>Species</th>
<th>Acute LD50</th>
<th>Acute LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral</td>
<td>rat</td>
<td>&gt;2000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>dermal</td>
<td>rabbit</td>
<td>&gt;2000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>inhalation</td>
<td>rat</td>
<td>Acute LC50 4 hr</td>
<td>No data</td>
</tr>
</tbody>
</table>

LOCAL EFFECTS ON SKIN AND EYE

<table>
<thead>
<tr>
<th>Effect</th>
<th>Species</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Irritation</td>
<td>dermal</td>
<td>Irritating</td>
</tr>
<tr>
<td>Acute Irritation</td>
<td>eye</td>
<td>Irritating</td>
</tr>
</tbody>
</table>

ALLERGIC SENSITIZATION

<table>
<thead>
<tr>
<th>Sensitization</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitization</td>
<td>skin</td>
</tr>
<tr>
<td>Sensitization</td>
<td>respiratory</td>
</tr>
</tbody>
</table>

GENOTOXICITY

Assays for Gene Mutations

Ames Salmonella Assay No data

OTHER INFORMATION

The product toxicity information above has been estimated.

HAZARDOUS INGREDIENT TOXICITY DATA

Poly(aromatic glycidyl ether) # 2 has an oral (rat) LD50 and dermal (rabbit) LD50 values of >5,000 mg/kg and >2,000 mg/kg, respectively. A 4-hour inhalation LC50 (rat) value of >700 mg/m³ has been reported. Prolonged or repeated skin contact may cause allergic skin reactions. This material produced moderate skin irritation and mild to moderate eye irritation in animal tests. This material has shown positive results in in vitro screening tests for mutagenicity. When ingested, Poly(aromatic glycidyl ether) has produced central nervous system effects in laboratory animals. Chronic ingestion caused reduced weight gain and death in laboratory animals. The oral (rat) LD50 and dermal (rabbit) LD50 values have also been reported to be ~10 gm/kg and greater than 20 ml/kg, respectively. The literature reports several cases of asthmatic symptoms developing in workers due to occupational exposure to this polymer.

Aromatic amine has oral (rat) LD50 and dermal (rabbit) LD50 values of 308 mg/kg and >2,000 mg/kg, respectively. Negative results were produced in various screening tests for mutagenicity. This material caused mild eye irritation in animal tests.

Phenolic epoxy resin #1 has acute oral (rat) and dermal (rabbit) LD50 values of both >2000 mg/kg. A 4-hour inhalation LC50 (rat) value of >700 mg/m³ has been reported. Prolonged or repeated exposure may cause primary skin irritation and allergic skin reactions in some instances. Mechanical action of this resin may cause eye irritation upon contact. This resin has produced moderate eye irritation in laboratory animals. This resin has been reported to have tested positive for mutagenicity in the standard Ames screening test as well as in a mouse lymphoma cell point mutation assay. The literature reports several cases of asthmatic symptoms developing in workers due to occupational exposure to this resin. Large oral doses of Phenolic epoxy resin #1 have produced central nervous system effects in laboratory animals.

Modified phenolic epoxy resin has oral (rat) LD50, dermal (rabbit) LD50 and dermal (rat) LD50 values of >5,000 mg/kg, >10,000 mg/kg, and >2000 mg/kg, respectively. Prolonged or repeated contact may cause allergic skin reactions. Direct contact may cause minimal skin irritation and moderate eye irritation. This material produced positive results in screening tests for mutagenicity.
Strontium chromate has an oral (rat) LD50 value of 3118 mg/kg. Acute overexposure to inorganic chromates may cause skin irritation. Repeated prolonged exposure to chromates may cause slow-healing skin lesions and allergic reactions. Inhalation of chromate dust or mist may cause corrosion of the nose. Workers exposed to chrome processing operations have an increased incidence of cancer of the lung. Virtually all soluble chromium salts can cause cancer in laboratory animal tests. Strontium chromate tested positive in the Ames test and produced sister chromatid exchanges in CHO cells. Strontium chromate is a hexavalent chromium compound which is known to the State of California to cause cancer. Strontium chromate is classified as Carcinogenic to Humans by the International Agency for Research on Cancer (IARC-1), and a Suspected Human Carcinogen by the ACGIH (A2).

California Proposition 65 Warning (applicable in California only) - This product contains (a) chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

12. ECOLOGICAL INFORMATION

TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS

Overall Environmental Toxicity: Toxic to aquatic life with long lasting effects.

The ecological assessment for this material is based on an evaluation of its components.

RESULTS OF PBT AND vPvB ASSESSMENT
Not determined

HAZARDOUS INGREDIENT TOXICITY DATA

<table>
<thead>
<tr>
<th>Component / CAS No.</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Toxicity to Water Flea</th>
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<tbody>
<tr>
<td>Poly( aromatic glycidyl ether ) #2</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Aromatic amine</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Phenolic epoxy resin #1</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Modified phenolic epoxy resin</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Strontium chromate 7789-06-2</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS
13. DISPOSAL CONSIDERATIONS
The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this MSDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this MSDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 3 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

14. TRANSPORT INFORMATION
This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

US DOT

Dangerous Goods? X

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.
Hazard Class: 9
Packing Group: III
UN/ID Number: UN3082
Transport Label Required: Miscellaneous
Marine Pollutant
Technical Name (N.O.S.): poly(aromatic glycidyl ether), Strontium chromate

<table>
<thead>
<tr>
<th>Component / CAS No.</th>
<th>Hazardous Substances / Reportable Quantity of Product (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strontium chromate</td>
<td>200</td>
</tr>
</tbody>
</table>

Comments: Marine Pollutants - DOT requirements specific to Marine Pollutants do not apply to non-bulk packagings transported by motor vehicles, rail cars or aircraft. Hazardous Substances/Reportable Quantities - DOT requirements specific to Hazardous Substances only apply if the quantity in one package equals or exceeds the product reportable quantity.

TRANSPORT CANADA

Dangerous Goods? X

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.
Hazard Class: 9
Packing Group: III
UN Number: UN3082
Transport Label Required: Miscellaneous
Marine Pollutant
Technical Name (N.O.S.): poly(aromatic glycidyl ether), strontium chromate

ICAO / IATA
Dangerous Goods? X
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.
Hazard Class: 9
Packing Group: III
UN Number: UN3082
Transport Label Required: Miscellaneous
Technical Name (N.O.S.): poly(aromatic glycidyl ether), strontium chromate

IMO

Dangerous Goods? X
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.
Hazard Class: 9
UN Number: UN3082
Packing Group: III
Transport Label Required: Miscellaneous
Marine Pollutant: Marine Pollutant
Technical Name (N.O.S.): poly(aromatic glycidyl ether), strontium chromate

15. REGULATORY INFORMATION

Inventory Information

United States (USA): All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

European Economic Area (including EU): Cytec has appointed an Only Representative to relieve our customers from their registration requirements under the REACH Regulation (EC) No. 1907/2006. Please contact us if you wish to benefit from the OR arrangement.

Australia: All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on AICS.

China: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

Japan: All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese inventory.

Korea: One or more components of this product are NOT included on the Korean (ECL) inventory.

Philippines: One or more components of this product are NOT included on the Philippine (PICCS) inventory.

OTHER ENVIRONMENTAL INFORMATION

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

<table>
<thead>
<tr>
<th>Component / CAS No.</th>
<th>%</th>
<th>TPQ (lbs)</th>
<th>RQ(lbs)</th>
<th>S313</th>
<th>TSCA 12B</th>
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</thead>
<tbody>
<tr>
<td>Strontium chromate</td>
<td>1 - 5</td>
<td>None</td>
<td>10</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>7789-06-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PRODUCT HAZARD CLASSIFICATION UNDER SECTION 311 OF SARA

- Acute
- Chronic

16. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)

Health: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

Fire: 1 - Materials that must be preheated before ignition can occur.

Instability: 0 - Materials that in themselves are normally stable, even under fire exposure conditions.

Reasons For Issue: New Product

Date Prepared: 03/08/2013
Date of last significant revision: 03/08/2013

Component Hazard Phrases

Poly(aromatic glycidyl ether) #2
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H411 - Toxic to aquatic life with long lasting effects.

Aromatic amine
- H302 - Harmful if swallowed.

Phenolic epoxy resin #1
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H411 - Toxic to aquatic life with long lasting effects.

Modified phenolic epoxy resin
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.

Strontium chromate
- H302 - Harmful if swallowed.
- H350 - May cause cancer.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.

Prepared By: Randy Deskin, Ph.D., DABT +1-973-357-3100

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