



## SAFETY DATA SHEET

### SECTION 1 : IDENTIFICATION

Product identifier used on the label:

**Product Name:** Dyphene 669 C

Other means of identification:

**Product Description:** 100% Phenolic resin  
**Synonyms:** Formaldehyde, polymer with 4-(1, 1-dimethylethyl)phenol, and 4, 4'-(methylethylidene)bis[phenol, and 4-tert-butylphenol; Phenolic Thermosetting Resin

Recommended use of the chemical and restrictions on use:

**Product Use/Restriction:** Dyphene® 669C is an oil soluble, heat-reactive, 100 percent phenolic resin recommended for use in general purpose neoprene elastomer adhesives. Provides good specific adhesion and tack retention properties. Imparts good cohesive strength along with moderate dry time. Produces very light colored cements.

Chemical distributor, or other responsible party Name, address, and telephone number:

**Distributor Name:** Western Reserve Chemical Corporation  
**Address:** 4837 Darrow Road  
Stow, OH 44224  
USA  
**General Phone Number:** 330 650 2244  
**General Fax Number:** 330 650 2255

Emergency phone number::

**Emergency Phone Number:** Chemtrec 1 800 424 9300 USA  
**Website:** www.wrchem.com

### SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

**GHS Pictograms:**



**Signal Word:** Warning

**GHS Class:** Skin Sensitizer, Category 1.

Formaldehyde, polymer with 4-(1, 1-dimethylethyl)phenol and 4, 4'-(methylethylidene)bis[phenol] (CAS No) 54579-44-1 97-99% Not GHS classified  
4-tert-butylphenol (CAS No) 98-54-4 1-3% Skin Irrit. 2, Eye Irrit. 2A, Skin Sens. 1, STOT SE 3, Aquatic Acute 2,

**Hazard Statements:** May cause an allergic skin reaction.  
May form combustible dust concentrations in air

**Precautionary Statements:** Avoid breathing dust/fume/gas/mist/vapours/spray.  
Contaminated work clothing should not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF ON SKIN: Wash with plenty of soap and water.  
Specific treatment (see First aid measures on this label)  
If skin irritation or rash occurs: Get medical advice/attention.  
Take off contaminated clothing and wash before reuse.  
P364 - Take off contaminated clothing and wash it before reuse  
Dispose of contents/container in accordance with all federal, state, and local health and environmental regulations.

Hazards not otherwise classified that have been identified during the classification process:

**Route of Exposure:** Eyes. Skin. Inhalation. Ingestion.

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation. Contact with skin can cause allergic reaction (sensitization) in some individuals.

**Carcinogenicity:** Not classified

### SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
Formaldehyde, polymer with 4-(1, 1-dimethylethyl)phenol and 4, 4'-(methylethylidene)bis[phenol]	54579-44-1	97-99 %	
4-Tert-butylphenol	98-54-4	1-3 %	

## SECTION 4 : FIRST AID MEASURES

### Description of necessary measures:

<b>Eye Contact:</b>	Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
<b>Skin Contact:</b>	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Inhalation:</b>	Allow victim to breathe fresh air. Allow the victim to rest.
<b>Ingestion:</b>	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
<b>First-aid measures general</b>	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.  Most important symptoms and effects, both acute and delayed: Symptoms/injuries after inhalation: May cause an allergic skin reaction.  Indication of any immediate medical attention and special treatment needed: No additional information available

## SECTION 5 : FIRE FIGHTING MEASURES

### Suitable and unsuitable extinguishing media:

<b>Suitable Extinguishing Media:</b>	Suitable: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
<b>Unsuitable extinguishing media:</b>	Do not use heavy water stream.
<b>Unusual Fire Hazards:</b>	Special hazards arising from the substance or mixture: Fire hazard: High concentration of airborne dust may form explosive mixture with air. Ensure that good housekeeping practices are followed as well as applicable guidelines such as the National Fire Protection Association [NFPA] 654, "Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids". Vapors may be heavier than air and may travel along the ground to some distant source of ignition and flash back.  Explosion hazard: Potential dust explosion hazard from airborne release.  Reactivity: Resin will polymerize exothermically at temperature in excess of 150 deg F.

### Special protective equipment and precautions for fire-fighters:

<b>Protective Equipment:</b>	Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.
<b>Fire Fighting Instructions:</b>	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures:

<b>Personnel Precautions:</b>	For non-emergency personnel: Emergency procedures: Evacuate unnecessary personnel.  For emergency responders: Protective equipment: Equip cleanup crew with proper protection. Emergency procedures: Ventilate area.
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### Environmental precautions:

<b>Environmental Precautions:</b>	Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.
<b>Methods for cleanup:</b>	On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.
<b>Reference to other sections</b>	See Heading 8. Exposure controls and personal protection.

## SECTION 7 : HANDLING and STORAGE

### Precautions for safe handling:

<b>Handling:</b>	Additional hazards when processed: Sensitivity to Static Discharge - Material can accumulate static charges from material handling management. Bond and ground as appropriate. For additional recommendations, consult applicable guideline such as National Fire Protection Association [NFPA] 77, "Recommended Practices on Static Electricity". The Minimum Ignition Energy for phenolic resins can be as low as 3 mj [millijoules]. The Minimum Explosive Concentration for phenolic resins can be as low as 20 g/m3.
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Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing dust or fumes.

**Hygiene Practices:** Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities:

**Storage:** Conditions for safe storage, including any incompatibilities:  
Storage conditions: Keep container closed when not in use. Keep only in the original container in a cool, well ventilated place away from: heat, sparks and open flame.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition.

Specific end use(s):

**Work Practices:** Safety showers and eye wash stations should be available.

**Specific end use(s):** No additional information available

## SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Appropriate engineering controls:

**Engineering Controls:** Appropriate engineering controls:  
Ventilation should be sufficient to effectively remove and prevent buildup of any vapours, dusts or fumes that may be generated during handling or thermal processing. In order to ensure appropriate electrical safety practices are followed, consult applicable standards. These may include guidelines such as the National Fire Protection Association [NFPA]70, "The National Electrical Code" and NFPA 499, "Recommended Practice for the Classification of Combustible Duds and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas". NOTE: since this materials vapours, dust or fumes can form explosive mixtures in air, ensure that any potential areas where explosions may occur are designed to minimize potential damage. For recommendations to prevent such explosions and associated damage, consult applicable guidelines.

Individual protection measures:

**Eye/Face Protection:** Chemical goggles or safety glasses.

**Skin Protection Description:** Wear suitable protective clothing.

**Hand Protection Description:** Wear protective gloves. neoprene. Nitrile rubber. butyl rubber.

**Respiratory Protection:** When appropriate, wear approved mask.

**Other Protective:** Do not eat, drink or smoke during use.

**PPE Pictograms:**



## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

**Physical State:** Solid  
Appearance: Flakes. Solid.

**Color:** Amber

**Odor:** Characteristic

**Odor Threshold:** No data available

**Boiling Point:** No data available

**Melting Point:** No data available

**Density:** Relative: 1.08 - 1.10

**Vapor Density:** Relative vapor density at 20 deg C: No data available

**Vapor Pressure:** No data available

**Evaporation Rate:** Relative evaporation rate (butyl acetate=1): No data available

**pH:** No data available

**Coefficient of Water/Oil Distribution:** Log Pow: No data available  
Log Kow: No data available

**Flash Point:** No data available

**Auto Ignition Temperature:** No data available

**Explosive Properties:** No data available

**Oxidizing Properties:** No data available

9.2. Other information:

**Notes :** Flammability (solid, gas): No data available  
Explosion limits: No data available

Other information: No additional information available

## SECTION 10 : STABILITY and REACTIVITY

### Reactivity:

**Reactivity:** Resin will polymerize exothermically at temperature in excess of 150 deg F.  
Possibility of hazardous reactions: Not established.

### Chemical Stability:

**Chemical Stability:** Stable under normal conditions.

### Conditions To Avoid:

**Conditions to Avoid:** Extremely high or low temperatures.

### Incompatible Materials:

**Incompatible Materials:** Strong acids. Strong bases.

### Hazardous Decomposition Products:

**Special Decomposition Products:** Fume. Carbon monoxide. Carbon dioxide.

## SECTION 11 : TOXICOLOGICAL INFORMATION

### TOXICOLOGICAL INFORMATION:

**Acute Toxicity:** Not classified

Substituted Phenolic Thermosetting Resin:  
Additional information: This product may generate nuisance dust. The number of factors associated with retention of pulmonary dusts are large. The most important factors appear to be 1) dust overload, 2) particle size, 3) solubility, 4) the toxic potency. The product is comprised relatively insoluble materials of low toxic potency. The dust in breathing air must be reduced so that lung burdens are well below 1000 nl/g lung. Lung clearance occurs by dissolution and by alveolar-macrophage mediated clearance.

**Sensitization:** Respiratory or skin sensitization: May cause an allergic skin reaction.

**Mutagenicity:** Germ cell mutagenicity: Not classified  
Based on available data, the classification criteria are not

**Reproductive Toxicity:** Not classified  
Based on available data, the classification criteria are not met

### 4-Tert-butylphenol :

**Skin:** LD50 dermal rabbit 2621 mg/kg (Rabbit)  
ATE US (dermal) 2621.000 mg/kg body weight

**Inhalation:** LC50 inhalation rat (mg/l) > 5.6 mg/l/4h (Rat)

**Ingestion:** LD50 oral rat 3370 mg/kg (Rat)  
ATE US (oral) 3370.000 mg/kg body weight

## SECTION 12 : ECOLOGICAL INFORMATION

### Persistence and degradability:

**Biodegradation:** Not established.

### Bioaccumulative potential:

**Bioaccumulation:** Substituted Phenolic Thermosetting Resin:  
Bioaccumulative potential: Not established.

### Mobility in soil:

**Mobility In Environmental Media:** Mobility in soil: No additional information available

### 4-Tert-butylphenol :

### Persistence and degradability:

**Biodegradation:** Persistence and degradability: Readily biodegradable in water. Photolysis in the air.  
ThOD: 2.77 g O<sub>2</sub>/g substance

### Bioaccumulative potential:

**Bioaccumulation:** BCF fish 1: 120 (3 h; Leuciscus idus)  
BCF fish 2: 20 - 88 (Cyprinus carpio; Test duration: 8 weeks)  
BCF other aquatic organisms 1: 34 (24 h; Chlorella sp.; Fresh weight)  
BCF other aquatic organisms 2: 240 (5 h; Bacteria; Activated sludge)  
Log Pow: 3.29 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)  
Bioaccumulative potential: Low potential for bioaccumulation (BCF < 500)

### Other adverse effects:

**Effect of Material On Aquatic Life:** LC50 fish 1: 1.6 mg/l (48 h; Leuciscus idus; Measured concentration)  
EC50 Daphnia 1: 3.9 mg/l (48 h; Daphnia magna)  
LC50 fish 2: 5.14 mg/l (96 h; Pimephales promelas)  
EC50 Daphnia 2: 4.8 mg/l (24 h; Daphnia magna)  
Threshold limit algae 1: > 10 mg/l (Scenedesmus quadricauda)  
Threshold limit algae 2: 11.2 mg/l (72 h; Scenedesmus subspicatus; Growth rate)

## SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

**Waste Disposal:** Waste disposal recommendations: Dispose of contents/container in accordance with all federal, state, and local health and environmental regulations.

Ecology - waste materials: Avoid release to the environment.

**SECTION 14 : TRANSPORT INFORMATION**

**DOT Shipping Name:** Not regulated for transport.

**DOT Pictograms:**



**IATA Shipping Name:** No Information Provided.

**IMDG Shipping Name :** No Information Provided.

**ADR Shipping Name :** No Information Provided.

**SECTION 15 : REGULATORY INFORMATION**

Safety, health and environmental regulations specific for the product:

**TSCA Inventory Status:** Listed on the United States TSCA (Toxic Substances Control Act) inventory

**Risk Phrases:** R43 - May cause sensitization by skin contact.

**SECTION 16 : ADDITIONAL INFORMATION**

HMIS Ratings:

**HMIS Health Hazard:** 1  
**HMIS Fire Hazard:** 1  
**HMIS Reactivity:** 2  
**HMIS Personal Protection:** J

<b>Health Hazard</b>	<b>1</b>
<b>Fire Hazard</b>	<b>1</b>
<b>Reactivity</b>	<b>2</b>
<b>Personal Protection</b>	<b>J</b>

**SDS Revision Date:** August 27, 2015

**Notes :** Important Note: This information relates to the specific product described herein and may not be valid for this material when used in combination with other raw materials. The information provided is without warranty regarding its accuracy or completeness. The information may not be valid under all conditions. The user has the final responsibility for determining the suitability of the product in a given application.

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