



## SAFETY DATA SHEET

### SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: **Dyphene 8318**  
SDS Manufacturer Number: 65

Other means of identification:

Product Description: Dyphene® 8318 is an oil-soluble, non-heat reactive alkyl phenolic novolak resin that imparts exceptional initial tack and tack retention to rubber compounds.

Synonyms: SL-1802A, Substituted Phenolic Thermoplastic Resin, para-tert-octylphenol and formaldehyde Resin, Formaldehyde ,polymer with 4-(1,1,3,3-tetramethylbutyl)phenol

Recommended use of the chemical and restrictions on use:

Product Use/Restriction: Dyphene 8318 is used extensively as a tackifier in tire compounds based on blends of NR, SBR and BR.

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](http://www.wrchem.com)

### SECTION 2 : HAZARD(S) IDENTIFICATION

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

GHS Pictograms:



Signal Word: DANGER!

GHS Class: \* Skin Irritant, Category 2  
\* Serious Eye Damage, Category 1.

Hazard Statements: \* Causes serious eye damage.

Precautionary Statements: \* Wear protective gloves/protective clothing/eye protection/face protection.  
\* IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
\* If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

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

Emergency Overview: IMMEDIATE CONCERNS: WARNING  
AIRBORNE DUST PARTICLES MAY FORM EXPLOSIVE AIR-DUST MIXTURE

Dust or vapors may be irritating to eyes, skin and respiratory tract. Dust may reduce lung function. Caution - a confined dust cloud could result in an explosion.

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

Eye: Dust or vapors may be irritating to the eyes.

Skin: Dust or vapors may irritate the skin. Prolonged and/or repeated contact with the skin may cause irritation or dermatitis.

Inhalation: Dust or vapors may be irritating to the respiratory tract.

Ingestion: Ingestion of a significant amount of hazardous ingredients from this product is unlikely. Weakly toxic by ingestion. Ingesting significant amounts may cause severe irritation of the mouth and throat, marked abdominal pain, vomiting and diarrhea.

Chronic Health Effects: Repeated contact with skin may cause dermatitis in sensitive individuals. Repeated breathing of dust or vapors may reduce lung function.

Carcinogenicity: Not known to be carcinogenic

**Phenol, 4-(1,1,3,3-tetramethylbutyl)-**

**Potential Environmental Effects:** \* Hazardous to the aquatic environment.

**Formaldehyde, polymer with 4-(1, 1, 3, 3-tetramethylbutyl)phenol**

**Carcinogenicity:** Formaldehyde has been shown to be carcinogenic in rats. There is no conclusive evidence regarding the carcinogenicity of formaldehyde in man.  
. Formaldehyde is listed by NTP as reasonably anticipated to be carcinogenic, and by IARC as a group 2A carcinogen. OSHA, in its formaldehyde Standard (29 CFR 191 0.1048) considers formaldehyde to be a potential carcinogen.

**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**

Mixtures:

<b>Chemical Name</b>	<b>CAS#</b>	<b>Ingredient Percent</b>	<b>EC Num.</b>
Phenol, 4-(1,1,3,3-tetramethylbutyl)-	140-66-9	1.5 - 4% by weight	
Formaldehyde, polymer with 4-(1, 1, 3, 3-tetramethylbutyl)phenol	26678-93-3	96 - 98.5% by weight	

**SECTION 4 : FIRST AID MEASURES**

Description of necessary measures:

**Eye Contact:** IMMEDIATELY flush eyes with a directed stream of water while forcibly holding eyelids open to ensure complete irrigation of all eye and lid tissue. Washing eyes within several seconds of exposure is essential to achieve maximum effectiveness. IF IRRITATION OCCURS, SEEK MEDICAL ATTENTION IMMEDIATELY.

**Skin Contact:** For skin contact, wash immediately with soap and water. Wash contaminated clothing before reuse. IF IRRITATION OCCURS, SEEK MEDICAL ATTENTION IMMEDIATELY.

**Inhalation:** If inhaled, IMMEDIATELY remove the affected person to fresh air. If breathing is difficult, have qualified person administer oxygen. If the affected person is not breathing, apply artificial respiration. SEEK MEDICAL ATTENTION IMMEDIATELY.

**Ingestion:** No specific intervention is indicated as compound is not likely to be hazardous by ingestion. However, if swallowed, DO NOT INDUCE VOMITING. Give the patient quantities of water or milk to minimize potential irritation. NEVER give anything by mouth to an unconscious person. SEEK MEDICAL ATTENTION IMMEDIATELY.

**SECTION 5 : FIRE FIGHTING MEASURES**

Suitable and unsuitable extinguishing media:

**Suitable Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, Halon, or alcohol foam.

**Unsuitable extinguishing media:** Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical:

**Hazardous Combustion Byproducts:** Complete combustion yields carbon dioxide and water. Incomplete combustion yields carbon monoxide, olefinic acid and paraffinic compounds. Varying amounts of ketones, aldehydes, alcohols and aromatics may also be formed.

Special protective equipment and precautions for fire-fighters:

**Protective Equipment:** Do not enter fire area without proper protective equipment, including respiratory protection. Firefighters should wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus and full protective clothing. Keep unauthorized personnel upwind.

**Fire Fighting Instructions:** Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

**Notes :** GENERAL 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 Rre and Dust Explosions from 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.

**SECTION 6 : ACCIDENTAL RELEASE MEASURES**

Environmental precautions:

<b>Environmental Precautions:</b>	Avoid release to the environment.
<u>Methods and materials for containment and cleaning up:</u>	
<b>Methods for containment:</b>	Prevent from spreading by covering, diking or other means.
<b>Methods for cleanup:</b>	On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.
<b>Notes :</b>	GENERAL PROCEDURES: Keep unnecessary personnel away. Eliminate all sources of ignition. Do not allow the spilled product to enter sewers or open waterways.

## SECTION 7 : HANDLING and STORAGE

### Precautions for safe handling:

<b>Handling:</b>	Guard against dust accumulation of this material. As with all chemicals, good industrial hygiene practices should be followed when handling this material. When the container(s) is empty it may retain product residue including vapors which could accumulate. Therefore, do not cut, drill, grind, or weld empty containers. Additionally, do not conduct such activity(ies) near full, or empty containers without appropriate workplace safety authorization(s) or permit(s).
<b>Hygiene Practices:</b>	* Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist. Keep away from food, drink and animal feeding stuffs.

### Conditions for safe storage, including any incompatibilities:

<b>Storage:</b>	Protect container from physical abuse. Keep the container tightly closed. Store in a cool, dry, well-ventilated storage area. Keep separate from incompatibles. Bond and ground containers when transferring material. Empty product containers may contain product residue. Do not reuse empty containers.
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### Specific end use(s):

<b>Work Practices:</b>	Handle in accordance with good industrial hygiene and safety practices. Safety showers and eye wash stations should be available.
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## SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

### EXPOSURE GUIDELINES:

#### Appropriate engineering controls:

<b>Engineering Controls:</b>	Ventilation should be sufficient to effectively remove and prevent buildup of any vapors, 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 Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas. NOTE: since this material's vapors, 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 such as National Fire Protection Association (NFPA) 69, Standard on Explosion Prevention Systems and/or NFPA 68, Guide for Venting Deflagrations.
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#### Individual protection measures:

<b>Eye/Face Protection:</b>	Wear safety glasses with side shields or chemical safety goggles (ANSI Z87.1).
<b>Skin Protection Description:</b>	Wear impervious gloves such as neoprene, butyl, or nitrile. Apron or coveralls should be used to prevent contact with skin or clothing.
<b>Hand Protection Description:</b>	Wear impervious gloves such as neoprene, butyl, or nitrile.
<b>Respiratory Protection:</b>	A NIOSH/MSHA approved respirator, following manufacturer's recommendations, should be used as a precautionary measure where airborne contaminants may occur.
<b>Other Protective:</b>	OTHER USE PRECAUTIONS: Eye wash facility and emergency shower should be in close proximity (ANSI Z358.1)

#### **PPE Pictograms:**



## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

### PHYSICAL AND CHEMICAL PROPERTIES:

<b>Physical State:</b>	Solid APPEARANCE: Amber flake or pastille
<b>Odor:</b>	
<b>pH:</b>	6.0 -8.5@ 100g/L

## SECTION 10 : STABILITY and REACTIVITY

### Chemical Stability:

<b>Chemical Stability:</b>	This is a stable product
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Possibility of hazardous reactions:

**Hazardous Polymerization:** Product is not known to undergo hazardous polymerization

Conditions To Avoid:

**Conditions to Avoid:** Keep away from heat, sparks or open flame

Incompatible Materials:

**Incompatible Materials:** Do not mix with strong acids.

Hazardous Decomposition Products:

**Special Decomposition Products:** Complete combustion yields carbon dioxide and water. Trace amounts of formaldehyde may be released during the curing process.  
The air concentration will be dictated by curing conditions, room ventilation and production rates. Airborne monitoring should be conducted to accurately determine the level of these substances in the air.  
For formaldehyde, symptoms of exposure including eye, nose, throat, and upper respiratory tract irritation, tearing and nose stuffiness usually are initially experienced at air concentrations in the range of 0.2- 1.0 ppm and become more severe above 1 ppm.  
For exceptionally sensitive individuals, symptoms may appear at far lower concentrations.  
For additional information, see Section 2. In laboratory tests.

## SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

**Eye:** Causes serious eye damage.  
pH: 6.0 - 8.5 at 100 g/L

**Skin:** Not classified  
pH: 6.0 - 8.5 at 100 g/L

**Sensitization:** Not classified

**Mutagenicity:** Not classified

**Reproductive Toxicity:** Not classified

Phenol, 4-(1,1,3,3-tetramethylbutyl)-:

**Skin:** 1880 mg/kg

**Ingestion:** 4600 mg/kg

## SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

**Ecotoxicity:** There is no significant environmental fate and effects data available. This product may have trace levels of chemicals that have fate and effects properties of their own. Due caution should be exercised to avoid accidental releases of this product to aquatic or terrestrial environments.

**Environmental Fate:** CHEMICAL FATE INFORMATION: None

Phenol, 4-(1,1,3,3-tetramethylbutyl)-:

Ecotoxicity:

**Ecotoxicity:** LC50 fish 1 0.25 mg/l (96 h; Pimephales promelas; Measured concentration)  
EC50 Daphnia 1 0.17 mg/l (24 h; Daphnia magna)  
LC50 fish 2 0.26 mg/l (96 h; Leuciscus idus; Measured concentration)  
Threshold limit algae 1 < 1 mg/l (96 h; Selenastrum capricornutum; GLP)

**Environmental Stability:** Phenol, 4-(1,1,3,3-tetramethylbutyl)- May cause long-term adverse effects in the environment. Not established.

Persistence and degradability:

**Biodegradation:** Formaldehyde, polymer with 4-(1,1,3,3-tetramethylbutyl)phenol - No data available.  
Phenol, 4-(1,1,3,3-tetramethylbutyl)- Not readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Photodegradation in the air.

Bioaccumulative potential:

**Bioaccumulation:** No data available

## SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

**Waste Disposal:** Dispose of all waste and contaminated material in accordance with all applicable federal, state and local health and environmental regulations.

RCRA/EPA WASTE INFORMATION: Waste product is not considered to be listed hazardous waste under 40 CFR Part 261. However, wastes should be tested using methods contained in 40 CFR Part 261 to determine if the waste meets applicable definitions of characteristic hazardous waste.  
RCRA HAZARD CLASS: No EPA Waste Numbers are applicable for this product's components.

## SECTION 14 : TRANSPORT INFORMATION

**DOT Shipping Name:** Non regulated.

DOT Pictograms:



IATA Shipping Name: No Information Provided.

IMDG Shipping Name : No Information Provided.

ADR Shipping Name : No Information Provided.

RID Shipping Name : No Information Provided.

ICAO Shipping Name: No Information Provided.

**SECTION 15 : REGULATORY INFORMATION**

Safety, health and environmental regulations specific for the product:

TSCA Inventory Status: Listed

SARA: This product does contain a material regulated under Title III, Section 302 and 313  
This product does not exceed reportable limits in CA, MA, MN, NJ, PA & RI

Risk Phrases: R41 - Risk of serious damage to eyes.

Safety Phrase: S36/39 - Wear suitable protective clothing and eye/face protection. S 3/9/14 - Keep in a cool, well-ventilated place away from .?. S29/35 - Do not empty into drains; dispose of this material and its container in a safe way.



**SECTION 16 : ADDITIONAL INFORMATION**

HMIS Ratings:

HMIS Health Hazard: 1

HMIS Fire Hazard: 1

HMIS Reactivity: 0

HMIS Personal Protection: J

Health Hazard	1
Fire Hazard	1
Reactivity	0
Personal Protection	J

SDS Revision Date: August 04, 2016

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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