



## SAFETY DATA SHEET

### SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: **Westco DTDM 80**

Other means of identification:

Product Description: Westco DTDM-80 is a sulfur donor vulcanizing agent for low sulfur or non-sulfur curing systems.

Synonyms: 80 wt% 4, 4'-dithiodimorpholine(DTDM); Morpholine disulfide vulcanization agent

Recommended use of the chemical and restrictions on use:

Product Use/Restriction: Westco DTDM-80 is a sulfur donor vulcanizing agent for low sulfur or non-sulfur curing systems. It provides good heat aging resistance in natural and synthetic rubber when used with sulfonamide accelerators.

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 Irritant, Category 3.  
\* Eye Irritant, Category 3.  
\* Skin Sensitizer, Category 1A.

Hazard Statements: \*May cause skin irritation  
\*May cause eye irritation.  
\*Prolonged or repeated skin contact may cause an allergic skin reaction.

Precautionary Statements: \* IF ON SKIN: Wash with plenty of soap and water.  
\* Do not eat, drink or smoke when using this product.  
\* Use personal protective equipment as required.

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

Emergency Overview: \* Irritant.

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

Eye: May be irritating to eyes.

Skin: May be irritating to skin. Prolonged or repeated contact may cause allergic skin reaction.

Inhalation: Unlikely due to physical form. Inhalation of process fumes may irritate the nose and throat.

Ingestion: Unlikely due to physical form

Carcinogenicity: None of the components in this product are listed by IARC, NTP, OSHA or ACGIH as carcinogens. May react with nitrosating agents to form nitrosamines which are suspected carcinogens.

### SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
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EPDM/EVM Binder	Proprietary	≤20 %
4, 4'-dithiodimorpholine (DTDM)	103-34-4	Approx.: 80% by weight

## SECTION 4 : FIRST AID MEASURES

### Description of necessary measures:

<b>Eye Contact:</b>	In case of eye contact rinse with plenty of water.
<b>Skin Contact:</b>	After contact with skin, wash immediately with plenty of water and soap.
<b>Inhalation:</b>	After inhalation of vapours during processing remove patient to the fresh air at once.
<b>Ingestion:</b>	Seek medical advice immediately if swallowed.

## SECTION 5 : FIRE FIGHTING MEASURES

### Suitable and unsuitable extinguishing media:

**Suitable Extinguishing Media:** Water, foam and dry powder.

### Specific hazards arising from the chemical:

**Hazardous Combustion Byproducts:** Irritating or toxic gases may be generated from decomposition/combustion products. Under low oxygen conditions, carbon, monoxide may be produced.

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

<b>Protective Equipment:</b>	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>Fire Fighting Instructions:</b>	Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.
<b>Notes :</b>	Ignition temperature: Not determined

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

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

**Personnel Precautions:**

- \* Wear personal protective equipment.
- \* Avoid contact with skin.
- \* Avoid contact with eyes.

### Environmental precautions:

**Environmental Precautions:** Rubber pellets are defined as a "significant material" by the U.S. EPA (40CFR 122.26) which requires that any plant that may expose the pellet to storm water obtain a storm water permit. Pellets found in storm water runoff are subject to EPA Regulations with the potential for substantial penalties.

### Methods and materials for containment and cleaning up:

**Spill Cleanup Measures:** Take up mechanically. Fill into labelled, sealed containers. No special measures against fire or explosion required.

## SECTION 7 : HANDLING and STORAGE

### Precautions for safe handling:

<b>Handling:</b>	Sufficient ventilation is required in the working area in consideration of other chemical additives used in rubber processing. No special measures against fire or explosion required.
<b>Hygiene Practices:</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Conditions for safe storage, including any incompatibilities:</b>	
<b>Storage:</b>	Store in a cool, dry place.
<b>Specific end use(s):</b>	
<b>Work Practices:</b>	Safety showers and eye wash stations should be available.
<b>Notes :</b>	Storage/Transport Temperature, degrees F (C) 40 - 90 (4.4 - 32.2) Storage/Transport Information: Avoid strong oxidizing agents and excessive heat.

## SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

### EXPOSURE GUIDELINES:

Appropriate engineering controls:

Individual protection measures:

**Eye/Face Protection:** Protective safety glasses / Eyewash stations should be accessible in the work area.

**Skin Protection Description:** Apron or coveralls should be used to prevent contact with skin or clothing.

**Hand Protection Description:** Protective gloves

**Respiratory Protection:** Not required but use of any respirator will be compliant to OSHA's Respiratory Protection Standard, 29CFR1910.134.

**PPE Pictograms:**



## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

**Physical State:** Form: Solid, granules  
**Color:** White  
**Odor:** Weak morpholine odour  
**Melting Point:** Not Applicable  
**Density:** Approx. 1,25 g/cm<sup>3</sup>  
**Solubility:** Practically insoluble, partially soluble in organic solvents  
**Vapor Pressure:** not determined  
**pH:** pH value: Not applicable  
**Flash Point:** Not Applicable  
**Explosive Properties:** Explosive limits: Not determined

9.2. Other information:

**Notes :** Ignition temperature: Not determined  
Tested in accordance with

## SECTION 10 : STABILITY and REACTIVITY

Reactivity:

**Reactivity:** Hazardous reaction:  
Contact with nitrosating agents may lead to nitrosamine formation.

Incompatible Materials:

**Incompatible Materials:** Strong oxidizing agents, extreme heat & nitrosating agents

Hazardous Decomposition Products:

**Special Decomposition Products:** Morpholine  
Thermal decomposition: After prolonged heating, decomposition starts at approx. 130 deg C  
Oxide of Carbon, Nitrogen & sulfur, amines. Combustion products from rubber must be considered toxic

**Notes :** Further information: Manual processing causes no dust formation.

## SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

4,4'-dithiodimorpholine (DTDM):

**Ingestion:** The following applies to 4,4'-dithiodimorpholine(DTDM):  
Lethal dose (LD50): 5600 mg/kg (oral, rat)

**Sensitization:** May cause skin sensitization.

**Carcinogenicity:** None of the components in this product are listed by IARC, NTP, OSHA or ACGIH as carcinogens. May react with nitrosating agents to form nitrosamines which are suspected carcinogens.

**Notes :** Refer to Section 3 for available information on health effects.

## SECTION 12 : ECOLOGICAL INFORMATION

## SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

**Waste Disposal:** Waste materials: Incinerate only in officially approved incinerator.  
Completely empty containers: Can be disposed of in local or commercial Incineration plants.

**Contaminated Packaging:** Damaged or unused product would not be considered a RCRA Hazardous Waste. It can be disposed of in A sanitary landfill with a proper waste profile.

**SECTION 14 : TRANSPORT INFORMATION**

**DOT Shipping Name:** Non regulated.

**DOT Pictograms:**



**SECTION 15 : REGULATORY INFORMATION**

Safety, health and environmental regulations specific for the product:

**TSCA Inventory Status:** All components of this product are listed in the TSCA inventory of Chemicals Substances.

**SARA:** Under Title III, Section 313 this product is classified as an Acute/Chronic material.

**CERCLA Section 302:** If an accidental spill occurs, it is not subject to any special reporting under the requirements of the Comprehensive Environmental Response Compensation and Reauthorization Act. See Section 4 on Accidental Release

**Risk Phrases:** \* R43 - May cause sensitization by skin contact.  
\* R36/38 - Irritating to eyes and skin.

**Safety Phrase:** \* S24 - Avoid contact with skin.  
\* S25 - Avoid contact with eyes.



**SECTION 16 : ADDITIONAL INFORMATION**

HMIS Ratings:

**HMIS Health Hazard:** 1  
**HMIS Fire Hazard:** 1  
**HMIS Reactivity:** 0  
**HMIS Personal Protection:** F

<b>Health Hazard</b>	<b>1</b>
<b>Fire Hazard</b>	<b>1</b>
<b>Reactivity</b>	<b>0</b>
<b>Personal Protection</b>	<b>F</b>

**SDS Revision Date:** July 14, 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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