SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER: ACCELERATOR DTDM PWD-D/CR

Manufactured for and supplied by:

Harwick Standard Distribution Corporation
60 South Seiberling Street
P.O. Box 9360
Akron, OH 44305-0360

Telephone no: (330) 798-9300

Date prepared: December 2, 2009
Preparer: Health, Safety & Environment

Product use: Accelerator

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

Components Chemical Identity	CAS Number	LD_{50} (mg/kg) of Ingredient	LC_{50} (mg/kg) of Ingredient	%
4,4'-Dithiodimorpholine	103-34-4	Oral/rat 5600 mg/kg		>96
Hydrotreated light napthenic distillate, petroleum* *Oiled powder and oiled crystal form only	64742-52-5			<2

SECTION 3 - HAZARD(S) IDENTIFICATION

Primary routes of exposure:
Inhalation ☑ **Skin contact** ☑ **Eye contact** ☑ **Skin absorption** ☐ **Ingestion** ☑

Emergency Overview: WARNING! Combustible dust-explosion potential. Keep away from heat, sparks, and flame. This material is irritating to skin, eyes and respiratory tract.

Potential Health Effects: This material is irritating to skin, eyes, and respiratory tract. Prolonged skin contact can cause skin irritation, skin sensitization or allergic skin reaction.

SECTION 4 – FIRST AID MEASURES

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, seek immediate medical attention.

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.

Skin contact: Remove contaminated clothing. Wash skin with water, using soap if available. Launder clothing before reuse. Seek medical attention if irritation persists

Eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and seek medical attention if irritation persists.

Notes to Physician: Provide symptomatic/supportive care as necessary. Treatment based on sound judgment of physician and individual reactions of patient. Observe for signs of respiratory distress.

SECTION 5 – FIRE FIGHTING MEASURES

Flash point (method): 309◦F (COC)

Extinguishing media: Water spray, carbon dioxide, foam, dry chemical.

Special fire fighting procedures: Fight fire from a safe distance and from a protected location. Flammable dust when finely divided and highly suspended state. Use water spray to cool fire exposed surfaces. Decomposition in fire may produce toxic gases. Do not allow runoff to enter waterways.

Unusual fire and explosion hazards: Toxic emissions may result if product is involved in a fire. Fire produces highly toxic sulfur dioxide gas. Avoid ignition sources such as sparks and flame.

Hazardous combustion products: Carbon monoxide, nitrogen oxide, sulfur dioxide gases and morpholine vapors.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Leak & Spill Procedure: Isolate area and remove sources of friction, impact, heat, low level electrical current, and RF energy. Isolate spill and stop leak if possible with being safe. Remove ignition sources and work with non-sparking tools. Scoop up and remove. Do NOT spread spilled product with water. Wear protective equipment specified. Avoid generation of dust. Scoop and place into container for disposal. Keep container closed.

SECTION 7 - HANDLING AND STORAGE

Handling: Good hygienic practices should be observed. Work clothes should be washed separately at the end of each workday. Disposable clothing should be discarded with material. Prevent dust accumulation. Avoid generating or breathing dust. Avoid contact with eyes, skin and clothing. Close containers of unused product. Wash hands before eating, drinking and chewing gum, using tobacco or suing the toilet. Do not reuse this container.

Storage: Store closed containers in a cool, dry, well-ventilated area. Avoid ignition sources such as sparks and flame. Store away from strong oxidizing materials. Avoid exposure to direct sunlight. Do not store near Crystex Insoluble Sulfur. Slowly degrades and releases irritating vapors under warm, humid conditions.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

4,4'-Dithiodimorpholine:

OSHA PEL/8 hr TWA:	15 mg/m^3 (total dust) – 5 mg/m^3 (respirable dust)
ACGIH TLV/8 hr TWA:	10 mg/m^3

Morpholine:

OSHA PEL/8 hr TWA:	20 ppm
NIOSH REL/8 Hr TWA:	30 ppm
ACGIH TLV/8 hr TWA:	20 ppm skin

Respiratory protection (specify type): A NIOSH/MSHA approved respirator above PEL or TLV, and/or an organic vapor respirator for vapors or mists.

Ventilation: **Local exhaust:** Recommended to minimize exposure.
Mechanical (general): Recommended to minimize exposure.

Protective gloves: Impervious

Eye protection: Chemical goggles

Skin protection: Normal work coveralls. Launder contaminated clothing before reuse.

Other protective clothing or equipment: Not available

Work/hygienic practices: Not available

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

Boiling point:	Not determined	Specific gravity:	1.36 @ 25◦C
Freezing point:	Not determined	pH:	Not determined
Melting point:	120-131◦C	Molecular weight:	236.4
Vapor pressure (mm Hg):	Negligible	Odor threshold (ppm):	Not determined
Vapor density (AIR=1):	Not determined	Coefficient of water/oil distribution:	Not determined
Solubility in water:	0.0082 g/100ml	Evaporation rate:	Not determined
Appearance (physical state):	Cream to off-white powder or crystalline powder	Odor:	Slight amine

SECTION 10 - STABILITY & REACTIVITY

Stability **Stable:** ☑
Unstable: ☐

Conditions to avoid (conditions of reactivity): Keep away from heat, sparks and flame. Avoid contact with strong oxidants such as liquid chlorine and concentrated oxygen. Reaction with nitrosating agents may form N-nitrosomorpholine, which is considered an animal carcinogen.

Incompatibility (materials to avoid): Reducing agents. Contact with acids. Avoid contamination of product with small amounts of water. Do not store near Crystex Insoluble Sulfur.

Hazardous decomposition or byproducts: CO_1, NO_X, of sulfur amines hydrogen sulfide. Under high moisture or acidic conditions, this material can degrade, release free morpholine, and form polysulfidic material. Reaction with reducing agents may release free morpholine and hydrogen sulfide.

Hazardous polymerization **May occur:** ☐
Will not occur: ☑

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute: May cause allergic skin reaction. May cause a rash & itching of skin. Causes eye irritation. Causes moderate respiratory irritation.

Carcinogenicity

NTP ☐ **IARC** ☐ **OSHA** ☐ **ACGIH** ☐

Morpholine: Certain conditions of use or storage may result in the formation of morpholine. Morpholine is irritating to eyes, skin and mucous membrane and has been reported to cause lung and liver damage following repeated exposure.

4,4′-Dithiodimorpholine can react with nitrosating agents to form N-Nitrosomorpholine. This chemical is listed as a substance that "may reasonably be anticipated to be carcinogenic" by the National Toxicology Program (NTP) and is classified as "possibly carcinogenic to humans" by the International Agency for Research on Cancer (IARC). N-Nitrosomorpholine has been shown to cause tumors in animal studies and cause genetic changes in standard test.

Reproductive toxicity: No birth defects were noted in a rat study. Adverse effects were reported in chicken embryos following direct exposure to this material.

SECTION 12 - ECOLOGICAL INFORMATION

Aquatic Toxicity:

Acute Fish Toxicity:	96Hr LC50 Rainbow Trout = 1.8 mg/l 96Hr LC50 Bluegill Sunfish = 1.6 mg/l 96Hr LC50 Fathead Minnow = 3.5 mg/l 48Hr LC50 Daphnia Magna= 4.5 mg/l 96Hr EC50 Algae = 29.0 mg/l
Octanol/Water Coefficient:	310
Chemical Fate Information:	Bioconcentration Factor: 29 (calculated). Aqueous Photolysis: T(1/2) = 3 hrs.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste disposal method: In accordance with federal, state, and local regulations.

SECTION 14 - TRANSPORTATION INFORMATION

Special shipping information: Not DOT regulated

SECTION 15 - REGULATORY INFORMATION

TSCA Inventory Status:
Chemical components are listed on the TSCA inventory.

SARA 313
This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and of 40 CFR 372: None known

SARA Sections 311 & 312
Superfund Amendments & Reauthorization Act of 1986 Title III: Immediate, delayed, fire

RCRA status
The following chemical components are listed under (40 CFR 261): None known

FDA Status 21 CFR: Regulated for Use under the following 21 CFR sections:
177.2600 - Rubber Articles Intended for Repeated Contact with Food
175.105 - Components of Adhesives

HMIS Classification: HEALTH 1 FLAMMABILITY 1 REACTIVITY 0

SECTION 16 - OTHER INFORMATION