

MATERIAL SAFETY DATA SHEET

MSDS NO.: 585 8003 0100 VER: 11

GEO Specialty Chemicals, Inc.

SAP CODE:
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Peroxy Chemicals

ISSUE DATE: 10/5/99

50 North Market Street

SUPERSEDES: 585 8003 0100 VER: 10

Gibbstown, NJ 08027

1-800-423-7193 [24 hr]

CHEMTREC EMERGENCY TELEPHONE NUMBER 1-800-424-9300

1 PRODUCT IDENTIFICATION

PRODUCT NAME:

ECHO® A VULCANIZING AGENT

CHEMICAL DESCRIPTION thiadiazole derivative
CAS NUMBER mixture

2 COMPOSITION / INFORMATION ON INGREDIENTS

OSHA Hazardous Ingredient	CASRN	Amount
thiadiazole derivative	proprietary	100 %

If this product is used in a manner that could generate particulates (dust), refer to MSDS Section 7, Handling and Storage, and Section 8, Recommended Exposure Limits and Personal Protective Equipment.

3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
DANGER!

Causes eye burns.
May cause eye injury or permanent blindness.
May cause skin irritation.
May cause skin sensitization.
Inhalation of dust, fumes, and pyrolysis products causes eye, skin, and respiratory tract irritation.
Static charges generated by emptying package in or near flammable vapors may cause flash fire.
May form flammable dust-air mixtures.

Refer to Section 5 for Hazardous Combustion Products, and Section 10 for Hazardous Decomposition/Hazardous Polymerization Products.

4 FIRST AID MEASURES

SKIN
Wash thoroughly with soap and water. Remove contaminated

clothing. Thoroughly wash clothing before reuse. Get medical attention if irritation develops or persists.

EYE

Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Exposure may result in permanent eye injury. Get immediate medical attention.

INHALATION

Remove to fresh air. Get medical attention if nasal, throat or lung irritation develops.

INGESTION

No adverse health effects are expected from accidental ingestion of small amounts of this product. For ingestion of large amounts: If conscious, drink one to two glasses of water (8-16 oz.). Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person.

5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Water spray, dry chemical, foam, carbon dioxide or clean extinguishing agents may be used on fires involving this product.

FIRE FIGHTING PROCEDURES

Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear when fighting fires involving this product.

CONDITIONS TO AVOID

None known.

HAZARDOUS COMBUSTION PRODUCTS

If heated to combustion, the following substances may be formed: carbon monoxide, carbon dioxide, smoke, nitrogen oxides, sulfur oxides, hydrazine or carbon disulfide. Inhaling pyrolysis fumes may cause severe respiratory irritation and death.

6 ACCIDENTAL RELEASE MEASURES

Extinguish all sources of ignition. Clean up spills immediately. If product is not contaminated, scoop into clean containers for use. If product is contaminated, scoop into containers, and dispose appropriately. In case of accidental spill or release, refer to Section 8, Personal Protective Equipment and General Hygiene Practices.

7 HANDLING & STORAGE

GENERAL MEASURES

Ground all equipment.

Blanket vessel with inert gas when emptying bags where flammable vapors may be present.

Ground operator and pour material slowly into conductive, grounded chute.

For large bags (1000 lbs or greater) a ground cable MUST be attached to the bag ground connection.

Store below 150° F (66° C).

Store in a dry, well ventilated area.

Keep container closed when not in use.

MATERIALS OR CONDITIONS TO AVOID

Avoid conditions that generate dust; product may form flammable dust-air mixtures.
Avoid emptying package in or near flammable vapors; static charges may cause flash fire.
Keep away from heat, flame, sparks and other ignition sources.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

WORK PRACTICES & ENGINEERING CONTROLS

Eyewash fountains and safety showers should be easily accessible.
Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Discharge from the ventilation system should comply with applicable air pollution control regulations.

GENERAL HYGIENIC PRACTICES

Avoid contact with eyes, skin, and clothing.
Avoid breathing dust or fumes.
Avoid contamination of food, beverages, or smoking materials.
Wash thoroughly after handling, and before eating, drinking or smoking.
Remove contaminated clothing promptly and clean thoroughly before reuse.

RECOMMENDED EXPOSURE LIMITS

PARTICULATES (dust): If used under conditions that generate particulates (dust), the ACGIH TLV-TWA of 3 mg/m³ respirable fraction (10 mg/m³ total) should be observed.

PERSONAL PROTECTIVE EQUIPMENT

Chemical goggles
Full face shield
Impervious gloves
Appropriate protective clothing
Appropriate respiratory protection is required when exposure to airborne contaminants may exceed acceptable limits. Respirators should be selected and used in accordance with OSHA, Subpart I (29 CFR 1910.134) and manufacturers recommendations.

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE

Eliminate ignition sources and prevent build-up of static electrical charges.
Completely isolate and thoroughly clean all equipment, piping, or vessels before beginning maintenance or repairs.
Keep area clean. Product will burn.

9 PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL STATE:	powder
COLOR:	off-white
ODOR:	mild pungent
Specific Gravity	1.46
Percent Volatile	negligible at 68° F
Solubility In Water	negligible at 68° F

10 STABILITY & REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS

May hydrolyze in the presence of water or base to give mercapturic and carboxylic acids.

HAZARDOUS POLYMERIZATION

Not anticipated under normal or recommended handling and storage conditions.

GENERAL STABILITY CONSIDERATIONS

Stable under recommended handling and storage conditions.

INCOMPATIBLE MATERIALS

None known

11 TOXICOLOGICAL INFORMATION

CARCINOGENICITY INFORMATION

Not listed as a carcinogen by NTP. Not regulated as a carcinogen by OSHA. Not evaluated by IARC.

REPORTED HUMAN EFFECTS

GEO Incorporated has not received any reports of adverse effects from workers handling this product. Based on animal studies, particulates or fumes may cause chemical burns to the eyes. Inhalation of fumes from material heated to typical curing temperatures may cause severe respiratory irritation. Repeated or prolonged contact may cause skin irritation or sensitization in susceptible individuals.

REPORTED ANIMAL EFFECTS

Oral LD50 (rat): 11.3 g/kg. Inhalation of fumes from material heated to 185-190° C caused death of 10/10 rats in 35 minutes (nominal concentration of 11 mg/L). Severe, prolonged irritant to rabbit eyes when not washed causing chemical burns and marked corneal injury. Prompt washing of the eye with water significantly reduced the injury. Mild skin irritant. Hydrolysis product of uncured material: Oral LD50 (rat): 2.5 g/kg. Severe, prolonged irritant to rabbit eyes, washed or unwashed, causing corneal opacity lasting through 14 days. Mild guinea pig sensitizer.

MUTAGENICITY/GENOTOXICITY INFORMATION

The hydrolysis product was negative in the Ames test, with or without metabolic activation. Six bacterial strains were tested.

12 ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Acute aquatic 96-hour static LC50 value falls within the moderately toxic range of 1-10 mg/L, according to U. S. Fish and Wildlife criteria. Fathead minnow was the species tested. Bacterial toxicity threshold (EC10): 175 ppm. Pseudomonas putida was the species tested.

BIODEGRADABILITY

PRODUCT/SIMILAR PRODUCT - Hydrolyzed in the environment, one of the hydrolysis products is not biodegradable.

13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Incineration in accordance with applicable regulations is a suitable alternative. Landfilling in a permitted solid or hazardous waste facility, meeting technical regulatory requirements, is a suitable alternative. Disposal should be in accordance with applicable Federal, State and local regulations.

14 TRANSPORT INFORMATION

GENERAL

This product is not subject to DOT, ICAO, IMDG or ADR regulations.

15 REGULATORY INFORMATION

CHEMICAL INVENTORIES

U.S. TSCA: The components of this product are included on the TSCA Inventory.

SARA TITLE III - SECTIONS 302/304

This product is not an Extremely Hazardous Substance subject to reporting under 40CFR355.

SARA TITLE III - SECTION 311 AND 312

HC-1: Acute health hazard
HC-2: Chronic health hazard
HC-3: Fire hazard

SARA TITLE III - SECTION 313

This product does not contain any chemicals subject to reporting under Section 313 of Title III of the Superfund Amendments and Reauthorization Act and 40CFR372.

CERCLA

This product does not contain any chemicals subject to reporting as a CERCLA Hazardous Substance under 40CFR302.4.

RCRA

This product is not a hazardous waste as listed in 40CFR261.33. It does not exhibit any of the hazardous characteristics listed in 40CFR261, Subpart C.

16 OTHER INFORMATION

HMIS RATINGS:

Health	3	Serious Hazard
Fire	1	Slight Hazard
Reactivity	0	Minimal Hazard

LIST OF ACRONYMS

ACGIH: American Conferences of Governmental Industrial Hygienists
AIHA WEEL: American Industrial Hygienists Association - Workplace Environmental Exposure Level
CASRN: Chemical Abstracts Service Registry Number
CERCLA: Comprehensive Emergency Response, Compensation and Liability Act
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: OSHA Permissible Exposure Limit
RCRA: Resource Conservation and Recovery Act
RQ: Reportable Quantity
SARA: Superfund Amendment Reauthorization Act
STEL: Short-Term Exposure Limit
TLV: Threshold Limit Values (registered trademark of ACGIH)
TPQ: Threshold Planning Quantity
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average

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DISCLAIMER

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.