1 PRODUCT AND COMPANY IDENTIFICATION

Thio and Fine Chemicals
Arkema Inc.
2000 Market Street
Philadelphia, PA 19103

EMERGENCY PHONE NUMBERS:
Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(866) 767-5089 (24Hrs)

Information Telephone Numbers	Phone Number	Available Hrs
Customer Service	1-800-628-4453	8:30 to 5:30 EST

Product Name	DI-TERT-DODECYL DISULFIDE
Product Synonym(s)	
Chemical Family	
Chemical Formula	C24H50S2
Chemical Name	Di-tert-dodecyl disulfide
EPA Reg Num	
Product Use	

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical %	OSHA
Disulfide, di-tert-dodecyl	27458-90-8	99 %	N

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200)

While this material is not classified as hazardous under Federal OSHA regulations, this MSDS contains valuable information critical to the safe handling and proper use of this product. This MSDS should be retained and available for employees and other users of this product.

The components of this product are all on the TSCA Inventory list.

3 HAZARDS IDENTIFICATION

Emergency Overview
Light yellow liquid

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICES.

Potential Health Effects

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. On the basis of available information, exposure to this material is not expected to produce significant adverse human health effects; however, use of appropriate good industrial hygiene and safety precautions to control exposure is recommended when handling or using this material.

4 FIRST AID MEASURES

IF IN EYES, immediately flush with plenty of water. Get medical attention if irritation persists.

IF SWALLOWED, induce vomiting immediately as directed by medical personnel. Get medical attention. Call a Poison Control Center. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IF INHALED, remove to fresh air. If breathing is difficult, get medical attention.

IF ON SKIN, immediately wash with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Destroy contaminated shoes.

5 FIRE FIGHTING MEASURES

Fire and Explosive Properties

Auto-Ignition Temperature		
Flash Point	118C (244F)	Flash Point Method
Flammable Limits- Upper	NE	
Lower	NE	

Extinguishing Media

Use water spray, carbon dioxide, foam or dry chemical.

Fire Fighting Instructions

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

Fire and Explosion Hazards

When burned, the following hazardous products of combustion can occur:
Sulfur oxides
Oxides of carbon
Hydrogen sulfide

6 ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Ventilate the area. Contain spill by building a dike using absorbent material. Consult with environmental engineer or professional to determine if neutralization is appropriate and for handling procedures for residual materials. Do not use solid bleach for neutralization, as fire or violent reaction can occur. Collect the liquid and solid absorbent into a drum approved for waste disposal. Flush area with water. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

7 HANDLING AND STORAGE

Handling

Keep container closed.
Use only with adequate ventilation.

7 HANDLING AND STORAGE

Avoid contact with eyes, skin and clothing.
Wash thoroughly after handling.

Storage

Store in a cool, dry place.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Investigate engineering techniques to reduce exposures. Provide ventilation if necessary to minimize exposures. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Eye / Face Protection

Use good industrial practice to avoid eye contact.

Skin Protection

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Wear face shield and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse contaminated skin promptly. Wash contaminated clothing and clean protective equipment before reuse. Wash skin thoroughly after handling.

Respiratory Protection

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Airborne Exposure Guidelines for Ingredients

The components of this product have no established Airborne Exposure Guidelines

-Only those components with exposure limits are printed in this section.
-Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.
-ACGIH Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic reactions.
-WEEL-AIHA Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic skin reactions.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor	Light yellow liquid
pH	NE
Specific Gravity	0.911
Vapor Pressure	NE
Vapor Density	911 kg/m3@20C
Melting Point	NE
Freezing Point	NE
Boiling Point	321C
Solubility In Water	Insoluble
Solubility in Other Materials	Hydrocarbons

10 STABILITY AND REACTIVITY

Stability

This material is chemically stable under normal and anticipated storage and handling conditions.

Hazardous Polymerization

Does not occur.

Incompatibility

Strong oxidizing and reducing agents.

Hazardous Decomposition Products

Oxides of carbon and sulfur and hydrogen sulfide

11 TOXICOLOGICAL INFORMATION

Toxicological Information

Data on this material and/or a similar material are summarized below.
Di-tert-dodecyl polysulfides
Single exposure (acute) studies indicate that this material is practically non-toxic if swallowed (mouse LD50 20,000-25,000 mg/kg), no more than slightly toxic if absorbed through skin (rat LD50 >2,000 mg/kg) and slightly irritating to rabbit eyes (9.2/104) and skin (4-hr exposure, 1.4/8.0).
Di-tert-dodecyl polysulfides
No skin allergy was observed in guinea pigs following repeated exposure. No genetic changes were observed in standard tests using bacteria or human cells.

12 ECOLOGICAL INFORMATION

Ecotoxicological Information

Data on this material and/or its components are summarized below.
tert-Dodecanethiol
This material is highly toxic to rainbow trout (4-hr LC100 0.06 mg/l), Daphnia magna (48-hr EC50 0.29 mg/l) and Ceriodaphnia dubia (168-hr EC50 0.42 mg/l).

12 ECOLOGICAL INFORMATION

Chemical Fate Information

Data on this material and/or its components are summarized below.
tert-Dodecanethiol
This material is not readily biodegradable in the closed bottle test (10.4% in 28-days). The log Pow is 6.1

13 DISPOSAL CONSIDERATIONS

Waste Disposal

Incineration is the recommended method for disposal observing all local, state and federal regulations. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations. Take appropriate measures to prevent release to the environment.

14 TRANSPORT INFORMATION

DOT Name	Environmentally hazardous substance, liquid, n.o.s.
DOT Technical Name	(Di-tert-dodecyl Disulfide)
DOT Hazard Class	9
UN Number	3082
DOT Packing Group	PG III
RQ	No
Marine Pollutant	Yes
DOT Special Information	Primary Hazard Label: Used only when shipped Internationally by vessel or when shipped in bulk packaging. All other modes of transportation are Non-Regulated.

15 REGULATORY INFORMATION

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370)

Immediate (Acute) Health	Y	Fire	N
Delayed (Chronic) Health	N	Reactive	N
		Sudden Release of Pressure	N

The components of this product are all on the TSCA Inventory list.

Ingredient Related Regulatory Information:

SARA Reportable Quantities	CERCLA RQ	SARA TPQ
Disulfide, di-tert-dodecyl	NE	

16 OTHER INFORMATION

Revision Information

Revision Date	30 DEC 2005	Revision Number 3
Supercedes Revision Dated	11-OCT-2004	

Revision Summary

Revised Section 14

Key

NE= Not Established NA= Not Applicable (R) = Registered Trademark