MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

TRADE NAME (as labeled): DMDS

2-MERCAPTOETHYL SULFIDE

MANUFACTURER'S NAME: MANUFACTURED BY ICA, INGENIERÍA Y

CIENCIAS APLICADAS, S.A. DE C.V. IN MEXICO

Address (mailing address): INDUSTRIA AUTOMOTRIZ 3045, PARQUE IND.

RAMOS ARIZPE, COAH. MEXICO, MEX.

Emergency phone: ONLY IN THE EVENT OF A CHEMICAL

EMERGENCY INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT YOU CAN CALL

CHEMTREC 1-800-424-9300

Date prepared or revised: 05/02/13 Name of preparer: BMG/MJL

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

CAS Number: 3570-55-6

Other chemical names: 2,2'THIODIETHANETHIOL or DIMERCAPTO-DIETHYL-

SULFIDE or THIODIGLYCOL DIMERCAPTAN

Molecular Formula: C₄H₁₀S₃

Structure: HS-CH₂CH₂-S-CH₂CH₂-SH

Assay: 95% min.

EINECS Number: 222-671-0

SECTION 3 HAZARDS IDENTIFICATION

Information pertaining to particular danger for man and environment

R 20 Harmful by inhalation.

R 36/37/38 Irritating to eyes, respiratory system and skin.

Classification system

HMIS reating (scale 0-4)

(Hazardous Materials Identification System)

Health (acute effects) = 2

Flammability = 2

Reactivity = 1

SECTION 4 FIRST AID MEASURES

In case of skin contact, immediately wash skin with soap and copious amounts of water for at least 15 minutes.

If inhaled, remove to fresh air. If not breathing give artificial respiration mouth to mouth. If breathing is difficult, give oxygen.

In case of contact with eyes, immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. If ingested, give water, do not induce vomiting. Never give liquids to an unconscious person.

Call a physician in all cases.

Discard contaminated clothing and shoes.

SECTION 5 FIRE FIGHTING MEASURES

FIRE EXTINGUISHING MATERIALS:

Water spray, carbon dioxide, or appropriate foam.

SPECIAL FIRE FIGHTING PROCEDURES:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Emits toxic fumes of carbon dioxide, carbon monoxide and various oxides of sulfur.

Container explosion may occur under fire conditions.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Evacuate area.

Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. If material can be contained as a liquid it may be neutralized with soda ash. Soda ash is itself a caustic irritant.

Otherwise spread absorbent material over liquid and mix until it appears dry. Shovel mixture into open top drum. Place lid on and close.

Avoid raising dust while sweeping.

Small spills can be deodorized with diluted bleach. Caution, this is an exothermic reaction.

Ventilate area and wash spill site after material pickup is complete.

Can use diluted bleach to deodorize spilled area.

SECTION 7 HANDLING AND STORAGE

Wear appropriate NIOSH/MSHA approved respirator, chemical resistant gloves, safety goggles, other protective clothing.

Use only in a chemical fume hood.

Avoid contact with eyes, skin, clothing.

Avoid prolonged or repeated exposure.

Keep tightly closed.

Store in dry area.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Wear appropriate NIOSH/MSHA approved respirator, chemical resistant gloves, safety goggles, other protective clothing.

Safety shower and eye bath.

Use only in a chemical fume hood.

Do not breathe vapor.

Avoid contact with eyes, skin, clothing.

Wash thoroughly after handling. If skin is not very sensitive, wash hands with very diluted bleach to remove residual skin odor.

Avoid prolonged or repeated exposure.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and odor: Clear, colorless to light yellow liquid, stench.

Boiling point or range: 134-137 C / 10 mmHg

Flash point: 90 C (195 F)
Specific gravity at 20 C: 1.184 g/cm3
Formula weight: 154.32
Solubility in water: 0.1%

Danger explosion: Products does not present an explosion hazard.

SECTION 10 STABILITY AND REACTIVITY

Stable.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong oxidizing agents, strong bases, reducing agents and alkali metals.

HAZARDOUS DECOMPOSITION PRODUCTS:

Toxic fumes of carbon monoxide, carbon dioxide, sulfur oxides, and hydrogen sulfide gas.

SECTION 11. TOXICOLOGICAL INFORMATION

May be fatal if swallowed. Causes eye irritation. May cause skin irritation. Exposure can cause: nausea, headache and vomiting. Possible carcinogen.

ORL-RAT: LD₅₀ 164 mg/kg (OECD Guideline No. 405)

IHL-RAT: LC₅₀ 0.16 mg/L 4 hours mist (OECD Guideline No. 404)

Chronic effects: not established

Additional Information: Redness to eyes, non-irritating to skin-rabbits.

SECTION 12. ECOLOGICAL INFORMATION

Environmentally hazardous material. Follow national and local guidelines.

SECTION 13. DISPOSAL CONSIDERATIONS

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber.

<u>NOTE</u>: Dispose of all wastes in accordance with national and local environmental regulations.

SECTION 14. TRANSPORT INFORMATION

Corrosive liquid, n.o.s., (2-MERCAPTOETHYL SULFIDE) UN1760, Class 8, Packaging Group III. Package presentation: 55 Gallon Plastic Drum, UN1H1/Y1.9/175/12 200 Kgs Net per drum.

SECTION 15 REGULATORY INFORMATION

TSCA listed

SECTION 16. OTHER INFORMATION

The above information is believed to be correct but does not claim to be all inclusive and shall be used only as a guide. ICA shall not be held liable for any damage resulting from handling or from contact with the above product.