



MATERIAL SAFETY DATA SHEET

Nease Corporation
10740 Paddys Run Road
Harrison, OH 45030
(513) 738-1255

Product Inquiries: (888) 762-7373

Emergency: CHEMTREC 800-424-9300

SECTION 1 - PRODUCT INFORMATION

PRODUCT NAME: NAXCAT® TSA-95
CHEMICAL NAME: Toluenesulfonic acid
CAS NUMBER: Mixture
PRODUCT CODE: 4601
MSDS NO.: 1-11108

ISSUE DATE: 11/02/05
SUPERSEDES: 07/13/05

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

| <u>CHEMICAL NAME</u> | <u>CAS REGISTRY NO.</u> | <u>PERCENT</u> | <u>EXPOSURE LIMITS</u> |
|----------------------------|-------------------------|----------------|-----------------------------|
| o,p - Toluenesulfonic acid | Mixture | > 95 | None established |
| Sulfuric acid | 7664-93-9 | < 2 | 1.0 mg/m ³ ; TWA |
| Toluene | 108-88-3 | < 1 | 50 ppm - skin; TWA |
| Water | 7732-18-5 | < 2 | None established |

SECTION 3 - HAZARD IDENTIFICATION

Appearance & Odor: Amber to brown semi-solid. Slight hydrocarbon odor

Primary Routes of Exposure: Skin, Eyes and Respiratory tract.

Health Hazard Warnings: DANGER! Corrosive. Causes severe burns to eyes and skin. Eye contact may cause blindness. Harmful if swallowed. Vapors are irritating. Exothermic reaction with water, alcohols and strong alkalis.

Inhalation: Inhalation can cause coughing, choking, and variable symptoms of headache, dizziness, and weakness. Pulmonary edema (accumulation of fluids in the lungs) with tightness in the chest, air hunger, dizziness, frothy sputum, and cyanosis may follow, 6 to 8 hour latent period. Physical findings may include moist rales and low blood pressure. Prolonged or repeated overexposure to toluene can cause kidney and liver damage.

Skin Contact: Can cause severe burns to skin. Material is extremely destructive to tissue.

Eye Contact: Can cause burns unless immediately and thoroughly flushed with water. May cause permanent eye damage. Symptoms include pain, tearing, and photophobia (sensitivity to light).

Ingestion: Material is harmful if swallowed. Severe burning pain in the mouth, pharynx and abdomen, followed by vomiting and diarrhea of dark precipitated blood. Choking will occur due to swelling of the throat.

SECTION 4 - FIRST AID MEASURES

Eyes: Immediately flush eyes with water for 15-20 minutes. Hold eyelids apart and roll eyes up and down to assure complete washing. Seek immediate medical attention.

Skin: Thoroughly flush the affected area with plenty of water while removing contaminated clothing and equipment. Wash with water for at least 15 minutes. Apply sterile bandages to affected area and treat as a thermal burn. Seek medical attention.

MATERIAL SAFETY DATA SHEET

Page 2 of 4

MSDS No.: 1-11108

SECTION 4 - FIRST AID MEASURES (CONT.)

Inhalation: Immediately move the patient to fresh air and call a physician. If breathing is difficult, give oxygen. If not breathing, begin artificial respiration.

Ingestion: Give the patient 1-2 glasses of water (8-16 ozs.) and call a physician. If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Other Specific Instructions: In the event of exposure, seek medical attention immediately. Do not give chemical antidotes unless directed to do so by the physician. Treat for shock.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: 363 °F Method: closed cup

Auto Ignition: No data available

Explosive Limits; UEL/LEL: No data available

Extinguishing Agents: Use water spray, dry chemical, carbon dioxide, or foam extinguishing agents.

Fire & Explosion Hazards: As in any fire prevent human exposure to fire, smoke, fumes or products of combustion. Firefighters should wear recommended exposure control equipment including a self-contained breathing apparatus. Cool containers with water sprays that are exposed to flames. Avoid placing a solid stream of water on spilled material.

Hazardous Combustion Products: Thermal decomposition produces oxides of carbon and sulfur.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Protective Equipment: Appropriate protective equipment must be worn when handling a spill of **NAXCAT® TSA-95**. See Section 8 - Exposure Control, for recommendations.

Spill or Leak Information: Absorb spill material with an inert material (i.e. vermiculite, soil, etc.). Sweep or scoop material into containers for disposal. Flush spill area with plenty of water to a chemical sewer. Collect water for proper disposal. Prevent discharge to bodies of water.

SECTION 7 - HANDLING AND STORAGE

Handling Conditions: Prevent all skin and eye contact. Emptied container may retain product residues. Follow all warnings and precautions even after container is emptied.

Storage Conditions: Keep container tightly closed when not in use. Store in cool and well ventilated area. Steel is corroded by sulfonic acids and is not recommended for prolonged storage at elevated temperatures since iron and color contamination could result. Dilution with water may increase the corrosivity of the acid. Material will absorb moisture.

SECTION 8 - EXPOSURE CONTROL

Eye Protection: Use chemical safety goggles. Wear face shield when transferring material.

Skin Protection: Skin contact with material should be minimized through the use of suitable impervious gloves. Butyl rubber or neoprene gloves are recommended. Use chemical resistant protective clothing or apron when handling this material.

MATERIAL SAFETY DATA SHEET

Page 3 of 4

MSDS No.: 1-11108

SECTION 8 - EXPOSURE CONTROL (CONT.)

Respiratory Protection: Use a NIOSH/MSHA approved full-facepiece air-purifying respirator with organic vapor/acid gas cartridge with a dust/mist prefilter. If exposure conditions warrant, wear a self-contained breathing apparatus in the positive pressure mode.

Ventilation: Good local exhaust ventilation should be provided.

Other Protective Equipment: Safety showers and eye wash stations where material is being handled. Wash hands and face before eating, using tobacco products or using the washroom. Smoke or eat only in designated areas. Take a warm shower and change clothing daily. Clothing and shoes used while handling this material should not be worn or taken away from the workplace.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber to brown semi-solid

Odor: Slight hydrocarbon odor

Melting Point: 106-107°C

Boiling Point: 140°C @ 20 mmHg

Evaporation Rate (butyl acetate=1): < 1

pH: < 1

Vapor Pressure: Low

Vapor Density (Air=1): > 1

Specific Gravity/Density: Approximately 1.3

Solubility in Water: Soluble, - 67g/100 ml

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and handling.

Incompatibility: Reacts with water, alcohols and strong alkalis. Avoid contact with bleach or other hypochlorites. May cause exothermic polymerization of furan resins.

Polymerization: Not expected to occur.

Decomposition: When heated to decomposition, will emit toxic oxides of carbon and sulfur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Data: The information shown in Section 3 - Hazard Identification, is based on toxicity profiles of similar materials or on the components present in this material.

Toluenesulfonic acid: LD₅₀ (oral - rat) = 2480 mg/kg

Sensitization: No information available.

Carcinogenicity/Mutagenicity: Toluenesulfonic acid is not known to be a human or animal carcinogen.

Teratogenicity/Reproductive Toxicity: Toluenesulfonic acid is not known to cause teratogenicity or reproductive toxicity.

SECTION 12 - ECOLOGICAL INFORMATION

Ecological Toxicity: Toluenesulfonic acid: *Daphnia magna* 96 hr. LC₅₀ = > 500 mg/l
24 hr. EC₅₀ = > 2,500 mg/l

MATERIAL SAFETY DATA SHEET

Page 4 of 4

MSDS No.: 1-11108

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal: This product if discarded as supplied, is considered a hazardous waste as defined by RCRA. Characteristic; Corrosive, D002. Dispose of in accordance with local, state and federal regulations.

SECTION 14 - TRANSPORT CONSIDERATIONS

Shipping Description: Aryl sulfonic acids, liquid with not more than 5 percent free sulfuric acid (Toluenesulfonic acid)

Hazard Class: 8

ID No.: UN2586

PG: III

Labels: Corrosive

SECTION 15 - REGULATORY CONSIDERATIONS

OSHA Regulatory Status: This product is a hazardous chemical under 29 CFR 1910.1200

SARA Title III

Section 311/312: This product is categorized as an immediate and delayed health hazard according to EPA under Section 311/312 of SARA.

Section 313: This product contains the following chemicals subject to 313 reporting:
None above de minimus limit

CERCLA:

| | |
|---------------|-----------|
| Toluene | 108-88-3 |
| Sulfuric Acid | 7664-93-9 |

Pennsylvania Right-to-Know:

| | |
|--------------------------|--------------------------|
| p - Toluenesulfonic acid | 104-15-4 |
| Toluene | 108-88-3; Environmental |
| Sulfuric Acid | 7664-93-9; Environmental |

California Proposition 65: This product contains a chemical known to the State of California to cause reproductive effects.

| | |
|---------|------------------------|
| Toluene | 108-88-3; Reproductive |
|---------|------------------------|

Chemical Control Law Status:

All components of this product are listed or are excluded from listing on the U.S. Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

WHMIS Ingredient Disclosure List:

| | |
|---------------|-----------|
| Sulfuric acid | 7664-93-9 |
| Toluene | 108-88-3 |

HMIS Health Rating: 3

HMIS Fire Rating: 1

HMIS Reactivity Rating: 1

HMIS Other: NA

SECTION 16 - OTHER CONSIDERATIONS

Prepared by Regulatory Staff Phone No.: (814) 238-2424

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