Naxcat® pTSA-97

SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name	p-Toluenesulfonic acid monohydrate
Trade name	Naxcat® pTSA-97
CAS No.	6192-52-5

Relevant identified uses of the substance or mixture and uses advised against

Identified use(s)	Catalyst
Uses advised against	None

Details of the supplier of the safety data sheet

Company Identification	Nease Co. LLC 10740 Paddys Run Road Harrison, OH 45030
Telephone	(513) 738-1255
Telephone (Product Information)	(888) 762-7373
Fax	(513) 587-2828
E-Mail (competent person)	techservice@neaseco.com

Emergency telephone number

Emergency Phone No.	(513) 738-1255 CHEMTREC 24 hr. (800) 424-9300

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200) — Skin Corr. 1C; Eye Dam. 1; Met. Corr. 1

Label elements

Hazard Symbol

Signal word(s): **DANGER**

Hazard statement(s):
Causes severe skin burns and eye damage.
May be corrosive to metals.

Precautionary statement(s):
Do not breathe dust/fume/gas/mist/vapours/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If irritation (redness, rash, blistering) develops, get medical attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Other hazards

Not classified as PBT or vPvB.

Additional Information

Contains residual toluene. Studies in animals have shown that repeated exposures produce adverse reproductive effects. However, given the corrosive / irritating nature of this product and the relatively low

concentration of toluene present, this product is not considered to pose a reproductive risk to humans.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredient(s)	%W/W	CAS No.	Hazard statement(s)
p-Toluenesulfonic acid monohydrate	>97%	6192-52-5	Causes severe skin burns and eye damage. Causes serious eye damage.
Sulfuric acid	<2%	7664-93-9	Causes severe skin burns and eye damage.

Additional Information - Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.

- Toluene (CAS No. 108-88-3) <1%

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Inhalation	Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is laboured, administer oxygen. If symptoms occur obtain medical attention.
Skin Contact	Wash affected skin with plenty of water. Remove contaminated clothing immediately. If irritation (redness, rash, blistering) develops, get medical attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
Ingestion	If ingested, rinse mouth. Do not induce vomiting. Seek medical treatment.
Most important symptoms and effects, both acute and delayed	None
Indication of any immediate medical attention and special treatment needed	None

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

-Suitable Extinguishing Media	Extinguish with waterspray, dry chemical, sand or carbon dioxide.
-Unsuitable Extinguishing Media	None anticipated.
Special hazards arising from the substance or mixture	None anticipated.
Advice for fire-fighters	Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Put on protective equipment before entering danger area.
Environmental precautions	Do not allow to enter drains, sewers or watercourses.
Methods and material for containment and cleaning up	Contain spillages with sand, earth or any suitable adsorbent material. Transfer to a container for disposal or recovery. Wash the spillage area with water. If possible prevent water running into sewers.

Reference to other sections None
Additional Information None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling Do not get in eyes, on skin, or on clothing.

Conditions for safe storage, including any incompatibilities

-Storage Temperature: Store at room temperature.

-Incompatible materials: Attacks many materials and clothing. Keep away from oxidising agents. Keep container tightly closed and dry.

Specific end use(s) Catalyst

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits

SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)		STEL (ppm)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Sulfuric acid	7664-93-9	1 mg/m³	0.2 mg/m³ (T)	----	----	(T)Thoracic fraction
Toluene	108-88-3	200	20	300 ceiling	----	500 10min. peak

Recommended monitoring method NIOSH 5043; NIOSH 7903

Exposure controls

Appropriate engineering controls Local exhaust required.

Personal protection equipment

Eye/face protection

The following to be used as necessary: Goggles giving complete protection to eyes.

Skin protection (Hand protection/ Other)

The following to be used as necessary:Gloves (Neoprene or Natural rubber). Chemical protection suit. Wear safety or chemical resistant shoes or boots. Check with protective equipment manufacturer's data.

Respiratory protection

No personal respiratory protective equipment normally required.

Thermal hazards: Use gloves with insulation for thermal protection, when needed.

Environmental Exposure Controls Do not allow to enter drains, sewers or watercourses.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Crystalline Needles
Colour	White
Odour	Slight hydrocarbon-like
Odour Threshold (ppm)	Not available.
pH (Value)	<2 (10% solution)
Melting Point (°C) / Freezing Point (°C)	103 - 105

Boiling point/boiling range (°C):	Not available.
Flash Point (°C)	Not applicable
Evaporation rate	<1 (butyl acetate =1)
Flammability (solid, gas)	Non-flammable.
Explosive limit ranges	Not applicable
Vapour Pressure (Pascal)	Low
Vapour Density (Air=1)	>1
Density (g/ml)	Not available.
Solubility (Water)	Soluble
Solubility (Other)	Not available.
Partition Coefficient (n-Octanol/water)	-0.62 (est. log P)
Auto Ignition Temperature (°C)	Not available.
Decomposition Temperature (°C)	Not available.
Kinematic Viscosity (cSt) @ 40°C	Not applicable.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

Other information Not available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity Stable under normal conditions.

Chemical stability Stable.

Possibility of hazardous reactions None anticipated.

Conditions to avoid Incompatible materials.

Incompatible materials Reacts with strong alkalis. Avoid contact with bleach or other hypochlorites. Generates heat of solution when dissolved in water and alcohols. May cause exothermic polymerisation of furan resin.

Hazardous Decomposition Product(s) Carbon monoxide, Carbon dioxide, Sulphur oxides, Acrid smoke

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation**,** Skin Contact**,** Eye Contact

Substances in preparations / mixtures

Toluene-4-sulfonic acid (CAS No. 104-15-4)

Acute toxicity (By analogy with similar materials) Oral: LD50 ≥ 1104 mg/kg-bw (rat)
Dermal: LD50 >2 g/kg-bw (rabbit)
Inhalation: LC50 > 100 mg= saturated (Vapor), 8 hour (rat)

Irritation/Corrosivity Corrosive (Skin and Eyes)

Sensitization It is not a skin sensitizer.

Repeated dose toxicity) NOAEL: > 500 mg/kg bw/day (28 days/week, oral, rat)

Carcinogenicity NOAEL (rat): ≥ 240 mg/kg (Fischer 344

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity There is no evidence of mutagenic potential.

Toxicity for reproduction No effects to the reproductive system. Residual toluene in this formulation is not expected to present a reproductive risk given the corrosive / irritating nature of this product.

Sulfuric acid (CAS No. 7664-93-9)

Acute toxicity

Oral: LD50 = 2140 mg/kg-bw (rat)
Dermal: No data
Inhalation: LC50 = 0.37-0.42 mg/l (rat)

Irritation/Corrosivity

Corrosive (Skin and Eyes)

Sensitization

Skin sensitisation has been reported in humans.

Repeated dose toxicity

No data.

Carcinogenicity

NOAEL (rat): ≥ 240 mg/kg (Fischer 344)

NTP	IARC	ACGIH	OSHA	NIOSH
Listed	Group 1	Group 2A	No.	No.

Mutagenicity

There is no evidence of mutagenic potential.

Toxicity for reproduction

NOAEL: 20 mg/m³ (rabbit) (New Zealand White)
NOEL: 20 mg/m³ (rabbit) (New Zealand White)

SECTION 12: ECOLOGICAL INFORMATION

Toluene-4-sulfonic acid (CAS No. 104-15-4)

Short term

LC50 (96 hour): >500 mg/L (*Leuciscus idus melanotus*)

EC50 (48 hour): >103 mg/l (*Daphnia magna,* mobility*)* - (By analogy with similar materials)

EC50 (72 hour): 70 mg/l (*Pseudokirchnerella subcapitata*) - (By analogy with similar materials)

Long Term

Scientifically unjustified

Persistence and degradability
Readily biodegradable.

Bioaccumulative potential
The product has low potential for bioaccumulation.

Mobility in soil
The substance has high mobility in soil.

Results of PBT and vPvB assessment
Not classified as PBT or vPvB.

Sulfuric acid (CAS No. 7664-93-9)

Short term

LC50 (96 hour): 42.0 mg/l (96 hour) (*Gambusia affinis*)
EC50 (24 hour): 29.0 mg/l (*Daphnia magna*)
EC50 (48 hour): 29 mg/l (*Pandalus montagui*)

Long Term

Scientifically unjustified

Persistence and degradability
Not readily biodegradable.

Bioaccumulative potential
The substance has no potential for bioaccumulation.

Mobility in soil
The substance has high mobility in soil.

Results of PBT and vPvB assessment
Not classified as PBT or vPvB.

Other adverse effects
None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

Additional Information

None known.

SECTION 14: TRANSPORT INFORMATION

	Land transport (U.S. DOT)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	2585	2585	2585
Proper Shipping Name	ARYLSULFONIC ACIDS, SOLID with not more than 5% free sulfuric acid	ARYLSULPHONIC ACIDS, SOLID with not more than 5% free sulphuric acid	ARYLSULPHONIC ACIDS, SOLID with not more than 5% free sulphuric acid
Transport hazard class(es)	8	8	8
Packing group	III	III	III
Hazard label(s)	Corrosive	Corrosive	Corrosive
Environmental hazards	No	No	No
Special precautions for user	None known.	None known.	None known.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not established.

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status**:** All components listed or polymer exempt.
Canada Domestic Substance List (DSL) - Listed

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
None	----	----	----

SARA 311/312 - Hazard Categories:

☐ Fire ☐ Sudden Release ☐ Reactivity ☒ Immediate (acute) ☐ Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
Toluene	108-88-3	< 1%

SARA 302 - Extremely Hazardous Substances(40 CFR 355):

Chemical Name	CAS No.	Typical %wt.
Sulfuric acid	7664-93-9	< 2%

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

Date of preparation: August 13, 2014

Additional Information:

HMIS (Hazardous Material Information System)

NFPA (National Fire Protection Association)