SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Chemical Name: Toluenesulfonic acid and Xylenesulfonic acid
Trade name: NAXCAT® MOD ACID-35
CAS No.: Mixture
EINECS No.: Mixture

Relevant identified uses of the substance or mixture and uses advised against
Identified use(s): Catalyst in the production of foam insulation panels.
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: +1-513-587-2828
E-Mail (competent person): techservice@neaseco.com

Emergency telephone number
Emergency Phone No.: Monday - Friday, 8 am – 4:30 p.m. (EST): 513-738-1255
CHEMTREC 24 hr. +1 (800) 424-9300

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture
Met. Corr. 1

Label elements
Hazard Symbol: 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 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: None known.
### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous ingredient(s)</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>Hazard statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>o, p-Toluenesulfonic acid</td>
<td>61%</td>
<td>88-20-0 104-15-4</td>
<td>Causes severe skin burns and eye damage. Causes serious eye damage.</td>
</tr>
<tr>
<td>Xylenesulfonic acid</td>
<td>31%</td>
<td>25321-41-9</td>
<td>May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage.</td>
</tr>
<tr>
<td>Sulfuric acid</td>
<td>&lt;2%</td>
<td>7664-93-9</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
</tbody>
</table>

**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%
- Xylene (CAS No. 1330-20-7) <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 symptoms occur obtain medical attention.

**Skin Contact**
Wash with plenty of soap and water. If skin irritation occurs, get medical advice/attention.

**Eye Contact**
Remove any contact lenses. Rinse cautiously with water for several minutes. If eye irritation persists, get medical advice/attention.

**Ingestion**

**Most important symptoms and effects, both acute and delayed**
None

**Indication of the 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**
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.

Reference to other sections
See Section: 8 and 13

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 metals. Keep away from oxidising agents.

Specific end use(s)
Catalyst in the production of foam insulation panels. In compliance with the conditions described in the annex to this safety data sheet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>CAS No.</th>
<th>LTEL (8 hr TWA ppm)</th>
<th>STEL (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>PEL (OSHA)</td>
<td>TLV (ACGIH)</td>
</tr>
<tr>
<td>Sulphuric acid</td>
<td>7664-93-9</td>
<td>1 mg/m³</td>
<td>----</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>200</td>
<td>20</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Recommended monitoring method
NIOSH 5043, NIOSH 7903, and NIOSH 1501

Exposure controls
Appropriate engineering controls
Local exhaust required. In compliance with the conditions described in the annex to this safety data sheet.

Personal protection equipment
Eye/face protection
The following to be used as necessary: Goggles giving complete protection to eyes. Full face shield.

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
Not normally required.

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

Environmental Exposure Controls
In compliance with the conditions described in the annex to this safety data sheet.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
Appearance
Liquid

Colour
Amber / Brown

Odour
Perceptible odour. Toluene-like.

Odour Threshold (ppm)
Not available.
pH (Value) <1
Melting Point (°C) / Freezing Point (°C) 0 - 15
Boiling point/boiling range (°C): 182 - 223
Flash Point (°C) >200 [Open cup]
Evaporation rate Not available.
Flammability (solid, gas) Not applicable.
Explosive limit ranges Not available.
Vapour Pressure (Pascal) ≈3000
Vapour Density (Air=1) >1
Density (g/ml) ≈1.3
Solubility (Water) 1155 g/L
Solubility (Other) Not available.
Partition Coefficient (n-Octanol/water) <0.1 (log P)
Auto Ignition Temperature (°C) >465
Decomposition Temperature (°C) Not available.
Kinematic Viscosity (cSt) @ 40°C ≈166
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 Oxidizers
Hazardous Decomposition Product(s) Carbon monoxide, Carbon dioxide, Sulphur oxides, Acrid smoke.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects
Toluene-4-sulphonic acid (CAS No. 104-15-4)
Acute toxicity
- Ingestion LD50 (rat): 1104 mg/kg
- Inhalation Not available.
- Dermal LD50 (rabbit): >2000 mg/kg (New Zealand White)
- Irritation Corrosive (Skin and Eyes)
Repeated dose toxicity (sub-acute to chronic) NOAEL (rat): ≥ 500 mg/kg (Wistar)
Mutagenicity Negative.
Carcinogenicity No data.

Xylenesulphonic acid (CAS No. 25321-41-9)
- See Section: Toluene-4-sulphonic acid (CAS No. 104-15-4)

Sulphuric acid (CAS No. 7664-93-9)
Acute toxicity
- Ingestion LD50 (rat): 2140 mg/kg
- Inhalation LC50 (rat): 0.37-0.42 mg/l
- Dermal No data.
- Irritation Non-irritant. (rabbit)
- Sensitisation Skin sensitisation has been reported in humans.
Repeated dose toxicity (sub-acute to chronic) No data.
Mutagenicity No data.
Carcinogenicity Some evidence of weak carcinogenic activity. (rat)
IARC Classification: Group 1.
ACGIH: Group 2A Suspected Human Carcinogen
NTP: Listed (Strong inorganic acid mists containing sulphuric acid)

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

Other information
None known.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Toluene-4-sulphonic acid (CAS No. 104-15-4)
EC50: 70 mg/l (72 hour) (Desmodesmus subspicatus)
NOEC: 44.8 mg/l (72 hour) (Desmodesmus subspicatus)
LC50: >500 mg/l (96 hour) (Leuciscusidus melanotus)
EC50: >103 mg/l (48 hour) (Daphnia magna)

Xylenesulphonic acid (CAS No. 25321-41-9)
See Also Section: Toluene-4-sulphonic acid

Sulphuric acid (CAS No. 7664-93-9)
EC50: 42.5 mg/l (48 hour) (Pandalus montagui)
LC50: 42.0 mg/l (96 hour) (Gambusia affinis)
EC50: 29.0 mg/l 24 hour(s) (Daphnia magna)

Persistence and degradability -
Toluene-4-sulphonic acid (CAS No. 104-15-4)
Readily biodegradable.

Xylenesulphonic acid (CAS No. 25321-41-9)
Readily biodegradable.

Sulphuric acid (CAS No. 7664-93-9)
Not readily biodegradable.

Bioaccumulative potential -
Toluene-4-sulphonic acid (CAS No. 104-15-4)
The substance has low potential for bioaccumulation.

Xylenesulphonic acid (CAS No. 25321-41-9)
The substance has low potential for bioaccumulation.

Sulphuric acid (CAS No. 7664-93-9)
The substance has no potential for bioaccumulation.

Mobility in soil
The product 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

DOT (DEPARTMENT OF TRANSPORTATION)
UN number 2586
Proper Shipping Name ARYSULFONIC ACIDS, LIQUID
with not more than 5% free sulphuric acid
Transport hazard class(es) 8
Packing Group III
Hazard label(s) 8
Environmental hazards No.
Special precautions for user None known.

Land transport (ADR/RID)
UN number 2586
Proper Shipping Name ARYSULFONIC ACIDS, LIQUID
with not more than 5% free sulphuric acid
Transport hazard class(es) 8
Packing Group III
Marine Pollutant No.
Special precautions for user

None known.

**Sea transport (IMDG)**

UN number: 2586
Proper Shipping Name: **ARYLSULPHONIC ACIDS, LIQUID** with 5% or less free sulphuric acid
Transport hazard class(es): 8
Packing Group: III
Environmental hazards: No.
Special precautions for user: None known.

**Air transport (ICAO/IATA)**

UN number: 2586
Proper Shipping Name: **ARYLSULPHONIC ACIDS, LIQUID** with 5% or less free sulphuric acid
Transport hazard class(es): 8
Packing Group: III
Environmental hazards: No.
Special precautions for user: 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):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Typical %wt.</th>
<th>RQ (Pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

**SARA 311/312 - Hazard Categories:**

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

**SARA 313 - Toxic Chemicals (40 CFR 372):**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Typical %wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Typical %wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphuric acid</td>
<td>7664-93-9</td>
<td>&lt; 2%</td>
</tr>
</tbody>
</table>

### SECTION 16: OTHER INFORMATION

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

**Date of preparation:** January 30, 2013

**Additional Information:** None.

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