SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name: Mixture
Trade name: NAXAN® EB123X
CAS No.: Mixture

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

Identified use(s): Demulsifier / Emulsion breaker
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): Flam. Liq. 3; Skin Corr. 1B; Eye Dam. 1; Met. Corr. 1; Carc. 2; Asp. Tox. 1

Label elements

Hazard Symbol:

Signal word(s): DANGER

Hazard statement(s):

Flammable liquid and vapour.
Causes severe skin burns and eye damage.
May be corrosive to metals.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.

Precautionary statement(s):

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
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. Get immediate medical advice/attention.
Other hazards
Toxic to aquatic life. Toxic to aquatic life with long lasting effects. Not classified as PBT or vPvB.

Additional Information
None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Composition/information on ingredients</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>Hazard statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Napthalenesulfonic acid, bis(1-methylethyl)-, me derives.</td>
<td>&gt;50%</td>
<td>99811-86-6</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Harmful to aquatic life.</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>&lt;5%</td>
<td>91-20-3</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Flammable solid.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Suspected of causing cancer.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>Sulfuric acid</td>
<td>&lt;7%</td>
<td>7664-93-9</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>Distillates (petroleum), catalytic reformer fractionator residue, low boiling</td>
<td>&lt;40%</td>
<td>68477-31-6</td>
<td>Suspected of causing cancer.</td>
</tr>
<tr>
<td>Xylene</td>
<td>&lt;15%</td>
<td>1330-20-7</td>
<td>Flammable liquid and vapour.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Causes eye irritation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>May cause respiratory irritation.</td>
</tr>
</tbody>
</table>

Additional Information
None

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 immediate medical advice/attention.

Ingestion
If ingested, rinse mouth. Do not induce vomiting. Seek medical treatment.

Most important symptoms and effects, both acute and delayed
Causes severe skin burns and eye damage.

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 or foam.

-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. Cautiously neutralize remainder. Carefully collect remainder.

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)
Demulsifier / Emulsion breaker

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>CAS No.</th>
<th>LTEL (8 hr TWA ppm)</th>
<th>STEL (ppm)</th>
<th>Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>PEL (OSHA)</td>
<td>TLV (ACGIH)</td>
<td>PEL (OSHA)</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>10</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Sulfuric acid</td>
<td>7664-93-9</td>
<td>1 mg/m³</td>
<td>0.2 mg/m³ (T)</td>
<td>---</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>---</td>
</tr>
</tbody>
</table>

Recommended monitoring method
NIOSH 1550 (Naphthas); NIOSH 7903 (Inorganic acids); NIOSH 1501 (Hydrocarbons, Aromatic)

Exposure controls

Appropriate engineering controls
Provide adequate ventilation to ensure that the occupational exposure limit is not exceeded.

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, Butyl rubber, 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Black</td>
</tr>
<tr>
<td>Odour</td>
<td>Acidic / Sulfurous</td>
</tr>
<tr>
<td>Odour Threshold (ppm)</td>
<td>Not available</td>
</tr>
<tr>
<td>pH (Value)</td>
<td>&lt;2 (conc. % w/w: 5)</td>
</tr>
<tr>
<td>Melting Point (°C) / Freezing Point (°C)</td>
<td>May solidify at 10.6 °C</td>
</tr>
<tr>
<td>Boiling point/bubbling range (°C):</td>
<td>210</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>27 (81 °F [Xylene])</td>
</tr>
<tr>
<td>Evaporation rate (butyl acetate=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive limit ranges</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Pressure (Pascal)</td>
<td>&lt;0.1 kPa at 20°C (sulfuric acid)</td>
</tr>
<tr>
<td>Vapour Density (Air=1)</td>
<td>3.4 (sulfuric acid).</td>
</tr>
<tr>
<td>Density (g/ml)</td>
<td>1.12 g/cm³ (20 °C)</td>
</tr>
<tr>
<td>Solubility (Water)</td>
<td>Soluble</td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition Coefficient (n-Octanol/water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto Ignition Temperature (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Kinematic Viscosity (cSt) @ 40°C</td>
<td>&lt;20.5</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not oxidising</td>
</tr>
</tbody>
</table>

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
Avoid contact with heat and ignition sources. Incompatible materials

Incompatible materials
Reacts with oxidizers and acids.

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

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation, Skin Contact, Eye Contact

Substances in preparations / mixtures
Naphthalenesulfonic acid, bis(1-methylethyl)-, me derives. (CAS No. 99811-86-6) - By analogy with similar materials:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Oral: LD50 = 1400 - 6000 mg/kg-bw</td>
</tr>
<tr>
<td>Irritation/Corrosivity</td>
<td>Corrosive (Skin and Eyes)</td>
</tr>
<tr>
<td>Sensitization</td>
<td>It is not a skin sensitizer.</td>
</tr>
<tr>
<td>Repeated dose toxicity</td>
<td>NOAEL: &gt; 1835 mg/kg bw/day (28 days, oral, rat)</td>
</tr>
</tbody>
</table>
Carcinogenicity

It is unlikely to present a carcinogenic hazard to man.

<table>
<thead>
<tr>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>NIOSH</th>
</tr>
</thead>
</table>

Mutagenicity

There is no evidence of mutagenic potential.

Toxicity for reproduction

No effects to the reproductive system.

Naphthalene (CAS No. 91-20-3)

Acute toxicity

Oral: LD50 > 490 mg/kg-bw (rat)
Oral: LD50 = 533 mg/kg-bw (mice)
Oral: LD50 = 1200 mg/kg-bw (guinea pig)
Oral: LD10 = 100 mg/kg-bw (child)
Oral: LD10 = 400 mg/kg-bw (dog)
Dermal: No data
Inhalation: LC50 > 0.4 mg/l (4 hr, rat)

Irritation/Corrosivity

Not irritating to skin or eye.

Sensitization

No data.

Repeated dose toxicity

No data.

Carcinogenicity

Studies in animals have shown that repeated exposures produce carcinogenic effects.

<table>
<thead>
<tr>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed</td>
<td>Group 1</td>
<td>Group 2A</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

Mutagenicity

There is no evidence of mutagenic potential.

Toxicity for reproduction

NOAEL: 20 mg/l³ (rabbit) (New Zealand White)
NOEL: 20 mg/l³ (rabbit) (New Zealand White)

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 sensitization has been reported in humans.

Repeated dose toxicity

No data.

Carcinogenicity

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

<table>
<thead>
<tr>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed</td>
<td>Group 1</td>
<td>Group 2A</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

Mutagenicity

There is no evidence of mutagenic potential.

Toxicity for reproduction

NOAEL: 20 mg/l³ (rabbit) (New Zealand White)
NOEL: 20 mg/l³ (rabbit) (New Zealand White)

Distillates (petroleum), catalytic reformer fractionator residue, low boiling (CAS No. 68477-31-6) - By analogy with similar materials:

Acute toxicity

Oral: LD50 = 3192 mg/kg-bw (calculated from mixture; mouse)
Dermal: LC50 = 26263 mg/l (calculated from mixture; rat)

Irritation/Corrosivity

Irritating to eyes and skin.

Sensitization

No data.

Repeated dose toxicity

No data.

Carcinogenicity

Suspected of causing cancer (Naphthalene [CAS No. 91-20-3])

<table>
<thead>
<tr>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed</td>
<td>Group 1</td>
<td>Group 2A</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>
NAXAN® EB123X

Revision: 31 January 2015  Page: 6/8

Xylenes (CAS No. 1330-20-7)

Acute toxicity
Oral LD₅₀ = 3520 mg/kg (rat)
Dermal LD₅₀ > 5000 mg/kg (rabbit)
Inhalation LC₅₀ = 27.6 mg/L (4 hour(s)) (rat) - Vapours may cause drowsiness and dizziness. May cause respiratory irritation.

Irritation / Corrosivity
Causes eye irritation. Causes skin irritation. Repeated exposure may cause skin dryness or cracking.

Sensitisation
It is not a skin sensitisier.

Repeated dose toxicity
Oral NOAEL = 900 mg/kg/day (rat) (90-days)
Inhalation NOAEL > 19,000 ppm (rat)

Carcinogenicity
Not to be expected

Mutagenicity
There is no evidence of mutagenic potential.

Toxicity for reproduction
None anticipated

SECTION 12: ECOLOGICAL INFORMATION

Substances in preparations / mixtures
Naphthalenesulfonylic acid, bis(1-methylethyl)-, me derives. (CAS No. 99811-86-6) - (By analogy with similar materials)

Short term
LC₅₀ (96 hour): 5300 mg/l (Leuciscus idus)
EC₅₀ (48 hour): 34 mg/l (Daphnia magna, mobility)
EC₅₀ (96 hour): 74.4 mg/l (Scenedesmus subspicatus)

Long Term
Not available

Persistence and degradability
Readily biodegradable.

Bioaccumulative potential
Not available.

Mobility in soil
The substance has high mobility in soil.

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

Naphthalene (CAS No. 91-20-3)

Short term
LC₅₀ (96 hour) = 0.958 mg/l (Oncorhynchus gorbuscha)
LC₅₀ (48 hour) = 2.16 mg/l (Daphnia magna)
EC₅₀ (24 hour) = 29 mg/l (Nitrosomonas)

Long Term
NOEC (4 days) = 2.78 mg/l (Gadus morhua)
NOEC (125 days) = 0.59 mg/l (Daphnia pulex)

Persistence and degradability
The product is not biodegradable.

Bioaccumulative potential
The product has low potential for bioaccumulation.

Mobility in soil
The product is predicted to have low mobility in soil.

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

Other adverse effects
None known.

Sulphuric 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

-NTP = National Toxicology Program
-IARC = International Agency for Research on Cancer
-ACGIH = American Conference of Governmental Industrial Hygienists
-OSHA = Occupational Safety and Health Administration
-NIOSH = National Institute for Occupational Safety and Health

-Studies in animals have shown that repeated doses of Naphthalene (CAS No. 91-20-3) produce carcinogenic effects.
**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**

<table>
<thead>
<tr>
<th>UN number</th>
<th>Land transport (U.S. DOT)</th>
<th>Sea transport (IMDG)</th>
<th>Air transport (ICAO/IATA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2920</td>
<td>Corrosive liquid, flammable, n.o.s. (alkylnaphthalene sulfonic acid, sulfuric acid, xylene)</td>
<td>Corrosive liquid, flammable, n.o.s. (alkylnaphthalene sulfonic acid, sulfuric acid, xylene)</td>
<td>Corrosive liquid, flammable, n.o.s. (alkylnaphthalene sulfonic acid, sulfuric acid, xylene)</td>
</tr>
<tr>
<td>8(3)</td>
<td>II</td>
<td>II</td>
<td>II</td>
</tr>
<tr>
<td>Corrosive, Flammable</td>
<td>Corrosive, Flammable</td>
<td>Corrosive, Flammable</td>
<td></td>
</tr>
</tbody>
</table>

**SARA 311/312 - Hazard Categories:**
- [x] Fire
- [ ] Sudden Release
- [ ] Reactivity
- [x] 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>Sulfuric acid</td>
<td>7664-93-9</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>5 - 10</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>Sulfuric acid</td>
<td>7664-93-9</td>
<td>&lt;5%</td>
</tr>
</tbody>
</table>
SECTION 16: OTHER INFORMATION

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

Date of preparation: January 31, 2015

Additional Information:

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