SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product form : Mixture
Product Name : Waste Brine From MIEX DOC Process
Product code : 6004

1.2. Relevant identified uses of the substance or mixture and uses advised against
1.2.1. Relevant identified uses
Industrial/Professional use specific : Industrial.
Use of the substance/mixture : Waste regenerant from ion exchange process. For professional use only.

1.2.2. Uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet
Company
MIEX UK Ltd
UK Registration: 09142972
3rd Floor, 1 Ashley Rd
Altrincham, Cheshire WA14 2DT
United Kingdom
+44.330.828.0757
www.ixom.com
www.ixomwatercare.com

1.4. Emergency telephone number
Emergency number : 0330-828-0757 Ixom

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified
Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
EUH-statements : EUH210 - Safety data sheet available on request

2.3. Other hazards
Other hazards not contributing to the classification : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS-No.) 7732-18-5</td>
<td>15 - 55</td>
<td>Not classified</td>
</tr>
<tr>
<td></td>
<td>(EC-No.) 231-791-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>(CAS-No.) 7647-14-5</td>
<td>10 - 29</td>
<td>Not classified</td>
</tr>
<tr>
<td></td>
<td>(EC-No.) 231-598-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1H,3H-Pyrano[4,3-b][1]benzopyran-9-carboxylic acid, 4,10-dihydro-3,7,8-trihydroxy-3-methyl-10-oxo-</td>
<td>(CAS-No.) 479-66-3</td>
<td>1 - 9</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (Dermal), H312</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (Inhalation:dust,mist), H332</td>
</tr>
<tr>
<td>Humic acids</td>
<td>(CAS-No.) 1415-93-6</td>
<td>1 - 9</td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td>(EC-No.) 215-809-6</td>
<td></td>
<td>Eye Irrit. 2, H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H335</td>
</tr>
</tbody>
</table>
Waste Brine From MIEX DOC Process
Safety Data Sheet

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.
First-aid measures after skin contact : Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.
First-aid measures after eye contact : Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation : Prolonged exposure may cause irritation.
Symptoms/effects after skin contact : Prolonged exposure may cause skin irritation.
Symptoms/effects after eye contact : May cause slight irritation to eyes.
Symptoms/effects after ingestion : Ingestion may cause adverse effects.
Chronic symptoms : None expected under normal conditions of use.

4.3. Indication of any immediate medical attention and special treatment needed
If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media : Water spray, dry chemical, foam, carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture
Fire hazard : Not considered flammable but may burn at high temperatures.
Explosion hazard : Product is not explosive.
Reactivity : Hazardous reactions will not occur under normal conditions.

5.3. Advice for firefighters
Precautionary measures fire : Exercise caution when fighting any chemical fire.
Firefighting instructions : Use water spray or fog for cooling exposed containers.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
General measures : Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray).

6.1.1. For non-emergency personnel
Protective equipment : Use appropriate personal protective equipment (PPE).
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental precautions
Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up
For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up : Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to other sections
See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.
SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray.

Hygiene measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Comply with applicable regulations.

Storage conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible products: Strong acids, strong bases, strong oxidizers. Nitric acid.

Storage temperature: 0 - 50 °C (32 - 122 °F)

7.3. Specific end use(s)

Waste regenerant from ion exchange process. For professional use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Sodium chloride (7647-14-5)</th>
<th>Latvia</th>
<th>OEL TWA (mg/m³)</th>
<th>5 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lithuania</td>
<td>IPRV (mg/m³)</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.


Materials for protective clothing: Chemically resistant materials and fabrics.

Hand protection: Wear protective gloves.

Eye protection: Chemical safety goggles.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other information: When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Appearance: Fully mixed-thick brown slurry. Unmixed-majority of the volume is brown settled material with the remaining volume being clear to opaque water supernatant.

Colour: No data available

Odour: No data available

Odour threshold: No data available

pH: 4 - 7

Evaporation rate: No data available

Melting point: > 350 °C (> 662 °F) for solids only

Freezing point: No data available

Boiling point: 100 °C (212 °F) for water only

Flash point: No data available

Auto-ignition temperature: No data available
Waste Brine From MIEX DOC Process
Safety Data Sheet

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
Hazardous reactions will not occur under normal conditions.

10.2. Chemical stability
Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5. Incompatible materials
Strong acids, strong bases, strong oxidizers. Nitric acid.

10.6. Hazardous decomposition products
None expected under normal conditions of use.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Not classified

<table>
<thead>
<tr>
<th>Sodium chloride (7647-14-5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>3 g/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>&gt; 42 g/m³ (Exposure time: 1 h)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1H,3H-Pyrano[4,3-b][1]benzopyran-9-carboxylic acid, 4,10-dihydro-3,7,8-trihydroxy-3-methyl-10-oxo- (479-66-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE CLP (oral)</td>
</tr>
<tr>
<td>ATE CLP (dermal)</td>
</tr>
<tr>
<td>ATE CLP (dust,mist)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive toxicity: Not classified
STOT-single exposure: Not classified
STOT-repeated exposure: Not classified
Aspiration hazard: Not classified
Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.
Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.
Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.
Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.
Chronic Symptoms: None expected under normal conditions of use.

9.2. Other information
No additional information available

Potential adverse human health effects and symptoms
Based on available data, the classification criteria are not met.
SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: Not classified.

<table>
<thead>
<tr>
<th>Sodium chloride (7647-14-5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>5560 (5560 - 6080) mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>12946 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>340,7 (340,7 - 469,2) mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

Waste Brine From MIEX DOC Process
Persistence and degradability: Not established.

12.3. Bioaccumulative potential

Waste Brine From MIEX DOC Process
Bioaccumulative potential: Not established.

<table>
<thead>
<tr>
<th>Sodium chloride (7647-14-5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>(no bioaccumulation)</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil
No additional information available

12.5. Results of PBT and vPvB assessment
No additional information available

12.6. Other adverse effects
Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product/Packaging disposal recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.
Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued. In accordance with ADR / RID / IMDG / IATA / ADN

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.5. Environmental hazards</td>
<td>Dangerous for the environment: No</td>
<td>Dangerous for the environment: No</td>
<td>Dangerous for the environment: No</td>
<td>Dangerous for the environment: No</td>
</tr>
<tr>
<td>14.6. Special precautions for user</td>
<td>No additional information available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code</td>
<td>Not applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

Water (7732-18-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Sodium chloride (7647-14-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Humic acids (1415-93-6)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Date of Preparation or Latest Revision: 29/06/2017

Data sources:
Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS or their subsequent adoption of GHS.


Full text of H- and EUH-statements:

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 (Dermal)</td>
<td>Acute toxicity (dermal), Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Inhalation:dust,mist)</td>
<td>Acute toxicity (inhalation:dust,mist) Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>Acute toxicity (oral), Category 4</td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation, Category 2</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation, Category 2</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>EUH210</td>
<td>Safety data sheet available on request</td>
</tr>
</tbody>
</table>

Indication of Changes: No additional information available
### Waste Brine From MIEX DOC Process

**Safety Data Sheet**


<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEC – European Economic Community</td>
<td>by Rail</td>
</tr>
<tr>
<td>EINECS – European Inventory of Existing Commercial Chemical Substances</td>
<td>SADT - Self Accelerating Decomposition Temperature</td>
</tr>
<tr>
<td>EmS-No. (Fire) - IMDG Emergency Schedule Fire</td>
<td>SDS - Safety Data Sheet</td>
</tr>
<tr>
<td>EmS-No. (Spillage) - IMDG Emergency Schedule Spillage</td>
<td>STEL - Short Term Exposure Limit</td>
</tr>
<tr>
<td>EU – European Union</td>
<td>TA-Luft - Technische Anleitung zur Reinhaltung der Luft</td>
</tr>
<tr>
<td>ErCSO - EC50 in Terms of Reduction Growth Rate</td>
<td>TEL TRK – Technical Guidance Concentrations</td>
</tr>
<tr>
<td>GHS – Globally Harmonized System of Classification and Labeling of Chemicals</td>
<td>ThOD – Theoretical Oxygen Demand</td>
</tr>
<tr>
<td>IARC - International Agency for Research on Cancer</td>
<td>TLM – Median Tolerance Limit</td>
</tr>
<tr>
<td>IATA - International Air Transport Association</td>
<td>TPRD - Trumpaikio Poveikio Ribinis Dydis</td>
</tr>
<tr>
<td>IBC Code - International Bulk Chemical Code</td>
<td>TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in ortsbeweglichen Behältern</td>
</tr>
<tr>
<td>IMDG - International Maritime Dangerous Goods</td>
<td>TRGS 552 - Technische Regeln für Gefahrstoffe - N-Nitrosamine</td>
</tr>
<tr>
<td>IPRV - Ilgalaikio Poveikio Ribinis Dydis</td>
<td>TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte</td>
</tr>
<tr>
<td>IOELV – Indicative Occupational Exposure Limit Value</td>
<td>TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte</td>
</tr>
<tr>
<td>LC50 - Median Lethal Concentration</td>
<td>TSCA - Toxic Substances Control Act</td>
</tr>
<tr>
<td>LD50 - Median Lethal Dose</td>
<td>TWA - Time Weighted Average</td>
</tr>
<tr>
<td>LOAEL - Lowest Observed Adverse Effect Level</td>
<td>VLA-EC - Valor Limite Ambiental Exposición de Corta Duración</td>
</tr>
<tr>
<td>LOEC - Lowest-Observed-Effect Concentration</td>
<td>VLA-ED - Valor Limite Ambiental Exposición Diaria</td>
</tr>
<tr>
<td>Log Koc - Soil Organic Carbon-water Partitioning Coefficient</td>
<td>VLE – Valeur Limite D’exposition</td>
</tr>
<tr>
<td>Log Kow - Octanol/water Partition Coefficient</td>
<td>VME – Valeur Limite De Moyenne Exposition</td>
</tr>
<tr>
<td>Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case octanol and water</td>
<td>vPvB - Very Persistent and Very Bioaccumulative</td>
</tr>
<tr>
<td>MAK – Maximum Workplace Concentration/Maximum Permissible Concentration</td>
<td>WEL – Workplace Exposure Limit</td>
</tr>
<tr>
<td>EU GHS SDS</td>
<td>WGK - Wassergefährdungsklasse</td>
</tr>
</tbody>
</table>

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.