ARSENIC STANDARD
MATERIAL SAFETY DATA SHEET

INTEGRA Chemical Company
1216 6th Ave N
Kent WA 98032
Phone: 253-479-7000

MSDS Number: A927.7A
Revision Date: 16-Apr-08
Revision No.: 005

24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)

Product Identification

Product Name: ARSENIC STANDARD
Synonyms: 
Chemical Formula: Mixture
Formula Weight: NA
Chemical Family: AA Standard
Integra Product Numbers: A927.7A

Physical Data

Boiling Point: NA
Melting Point: NA
Vapor Pressure: NA
Specific Gravity: NA
Evaporation Rate: NA
Vapor Density: NA
Air = 1
Solubility: Miscible with water.
Appearance and Odor: Clear, colorless liquid.

Fire and Explosion Data

Flash Point: NA
Auto-ignition Temperature: NA
Flammable Limits (% by volume in air): Upper: NA
Lower: NA

Material is not flammable. Use extinguishing media suitable to surrounding materials.

Special Firefighting Procedures:
Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.

Unusual Fire and Explosion Hazards:
None identified

Health Hazard Information

Effects of Overexposure
Skin Contact:

WARNING
Causes irritation. Harmful if swallowed or inhaled. Use only with adequate ventilation. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Contains arsenic. Potential cancer hazard. Handle with due care.
Health Hazard Information

Effects of Overexposure

Skin Contact:
Contact may cause skin irritation.

Eye Contact:
May irritate or burn the eyes.

Ingestion:
May be harmful if swallowed. May cause burns to the mouth, throat and gastrointestinal tract. Symptoms of arsenic poisoning include throat constriction, abdominal pain, vomiting and watery diarrhea. Blood may appear in vomit or stools. Onset of symptoms may be delayed by 1/2 to 4 hours. If amount of arsenic ingested is sufficiently high, shock may develop due to severe fluid loss, and death may follow within 24 hours. If acute symptoms are survived they may be followed by inflammation of the skin, nerve degeneration, pain, sensory disturbances and impaired or lost reflexes.

Inhalation:
None Identified

Chronic Effects of Overexposure:
Chronic arsenic poisoning is characterized by loss of appetite, mild nausea, occasional vomiting, heaviness in the stomach and some diarrhea. This may be followed by inflammation of the mucous membranes, hoarseness and respiratory irritation.

Exposure Limits:

<table>
<thead>
<tr>
<th></th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
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</thead>
<tbody>
<tr>
<td>Water</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Nitric acid</td>
<td>2 ppm</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Arsenic</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
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</tbody>
</table>

OSHA PEL

<table>
<thead>
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<tr>
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<td>NE</td>
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<tr>
<td>Nitric acid</td>
<td>2 ppm</td>
<td>4 ppm</td>
</tr>
<tr>
<td>Arsenic</td>
<td>0.01 mg/m3</td>
<td>NE</td>
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ACGIH TLV

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<tr>
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Toxicity Data:

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Water</td>
<td>No information available</td>
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</tr>
<tr>
<td>Nitric acid</td>
<td>TDL0 (oral, human)</td>
<td>430 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 (oral, human)</td>
<td>110 mg/kg</td>
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<tr>
<td></td>
<td>LC50 (inhalation, rat)</td>
<td>2500 ppm/1H</td>
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<tr>
<td>Arsenic</td>
<td>TDL0 (oral, man)</td>
<td>7857 mg/kg</td>
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<tr>
<td></td>
<td>LD50 (oral, mouse)</td>
<td>145 mg/kg</td>
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<tr>
<td></td>
<td>LD50 (intraperitoneal, mouse)</td>
<td>46200 ug/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 (oral, rat)</td>
<td>763 mg/kg</td>
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</tbody>
</table>

Medical Conditions Generally Aggravated by Exposure:
None Identified

Target Organs:
Bone marrow, respiratory system, skin.

Reproductive Effects:
None Identified
Carcinogenicity:
Arsenic is a known cancer causing substance.

<table>
<thead>
<tr>
<th>Component</th>
<th>NTP Listing</th>
<th>IARC Listing</th>
<th>OSHA Regulated</th>
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<td>Water</td>
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<td>No listing</td>
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<td></td>
</tr>
<tr>
<td>Arsenic</td>
<td>Group 1, Known Carcinogen</td>
<td>Group 1, Known Human Carcinogen</td>
<td></td>
</tr>
</tbody>
</table>

Emergency First Aid Procedures

Skin Contact:
Remove contaminated clothing. Flush skin with water for at least 15 minutes. Seek medical attention if irritation persists.

Eye Contact:
Flush with water for at least 15 minutes. Seek immediate medical attention.

Inhalation:
Remove to fresh air. If breathing difficulty persists seek immediate medical attention.

Ingestion:
Do not induce vomiting. If victim is conscious, give water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Additional First aid and Treatment Notes:
No information available

Reactivity Data

Stability: Stable
Hazardous Polymerization: Will Not Occur

Incompatibles:
Incompatible with strong bases.

Decomposition Products:
Arsenic oxides.

Conditions to Avoid:
Contamination.

Spill and Disposal Procedures

Spill and Leak Procedures:
Prevent spread of spill. Neutralize with soda ash or lime and sweep or scoop into suitable disposal container. Flush residues with water. Contain runoff. Do not flush to sewer or storm drain. Wear full protective equipment.

Disposal Procedures:
Dispose in accordance with all Local, State and Federal regulations.

Protective Equipment

Ventilation:
Use general or local exhaust ventilation to meet TLV and PEL requirements.

Respiratory Protection:
Respiratory protection required if airborne concentrations exceed PEL or TLV. A chemical cartridge respirator with
Respiratory Protection:
an acid/organic cartridge is recommended.

Skin and Eye Protective Equipment:
Safety goggles, protective clothing and gloves. Maintain an eyewash station and safety shower nearby.

Storage and Handling Precautions

Storage Area: CORROSIVE, ACID
Store in a cool, dry, corrosive materials storage area. Minimize exposure to air and light. Protect containers from physical damage. Sensitive standard, avoid contamination of any kind.

Transportation Information

Regulated Material domestic ground transportation (reference: CFR Title 49, Transportation)
Proper Shipping Name: Corrosive liquid, acidic, inorganic, nos (nitric acid)
UN or NA Identification number: UN3264 Hazard Class and Label: 8 Corrosive
Packing Group: III Subsidiary Risk and Label:

Regulated Material via Air Transportation (reference: ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air)
Proper Shipping Name: Corrosive liquid, acidic, inorganic, nos (nitric acid)
UN Identification Number: UN3264 Hazard Class and Label: 8 Corrosive
Packing Group: III Subsidiary Risk and Label:

Packing Instruction Max net qty per package
Passenger Aircraft: 818/Y818 5/1L
Cargo Aircraft: 820 60 L

Regulatory Information

Component TSCA CERCLA SARA EHS SARA 313 Toxic Release
Water Inventory RQ TPQ lbs de minimus
Nitric acid 1000 lbs 1000 lbs 1.0 lbs
Arsenic 1 lbs 0.1 lbs

SARA Hazard Categories: Acute Chronic Flammability Pressure Reactivity
Water
Nitric acid
Arsenic

Clean Air Act Categories: SOCMI HAP Volatile HAP Organic HAP Ozone Depleting
Water
Nitric acid
Arsenic

MSDS Revision History:
002 - Changed header phone number
003 - Updated DOT information
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Regulatory Information

004 - Format revisions; updated header phone number
005 - Updated Header Information

NE = Not established, NA = Not applicable or Not available

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***** END OF MSDS *****