

# MATERIAL SAFETY DATA SHEET SDS/MSDS

# Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

# **PRODUCT NAME**

POTASSIUM STANDARD SOLUTION (1000MG/L)

# PROPER SHIPPING NAME

CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(contains nitric acid)

# **PRODUCT USE**

General laboratory reagent.

# **SUPPLIER**

Company: BIO-CHEM Chemical 5455, Nicholson Road Science Market, Ambala Cantt. 133001 Haryana (India) +91-82952 41953 info@biofinechemical.com - www.biofinechemical.com

# **Section 2 - HAZARDS IDENTIFICATION**

# **HAZARD RATINGS**



# **GHS Classification**

Eye Irritation Category 2A Metal Corrosion Category 1 Skin Corrosion/Irritation Category 2



#### **EMERGENCY OVERVIEW**

#### **HAZARD**

WARNING

Determined by using GHS criteria:

H315 H319 H290

Causes skin irritation

Causes serious eve irritation

May be corrosive to metals

# PRECAUTIONARY STATEMENTS

#### Prevention

Keep only in original container.

Wash thoroughly after handling.

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

# Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Absorb spillage to prevent material damage.

#### Storage

Store in corrosive resistant container or with a resistant inner liner.

| Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS |           |          |
|--|-----------|----------|
| NAME   | CAS RN    | %        |
| nitric acid  | 7697-37-2 | NOT SPEC |
| potassium nitrate                                    | 7757-79-1 | NOT SPEC |
| water  | 7732-18-5 | NOT SPEC |

#### **Section 4 - FIRST AID MEASURES**

# **SWALLOWED**

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- · Seek medical advice.

# EYE

- If this product comes in contact with the eyes:
- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

## SKIN

- If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- · Seek medical attention in event of irritation.

#### **INHALED**

- If fumes or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

# **NOTES TO PHYSICIAN**

■ Treat symptomatically.

For acute or short term repeated exposures to strong acids:

- Airway problems may arise from laryngeal edema and inhalation exposure. Treat with 100% oxygen initially.
- Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling
- Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise.
- Strong acids produce a coagulation necrosis characterised by formation of a coagulum (eschar) as a result of the dessicating action of the acid on proteins in specific tissues.

#### INGESTION:

- Immediate dilution (milk or water) within 30 minutes post ingestion is recommended.
- DO NOT attempt to neutralise the acid since exothermic reaction may extend the corrosive injury.
- Be careful to avoid further vomit since re-exposure of the mucosa to the acid is harmful. Limit fluids to
  one or two glasses in an adult.
- Charcoal has no place in acid management.
- Some authors suggest the use of lavage within 1 hour of ingestion.

# SKIN:

- Skin lesions require copious saline irrigation. Treat chemical burns as thermal burns with non-adherent gauze and wrapping.
- Deep second-degree burns may benefit from topical silver sulfadiazine.

#### EYE:

- Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjuctival cul-desacs. Irrigation should last at least 20-30 minutes. DO NOT use neutralising agents or any other additives. Several litres of saline are required.
- Cycloplegic drops, (1% cyclopentolate for short-term use or 5% homatropine for longer term use) antibiotic drops, vasoconstrictive agents or artificial tears may be indicated dependent on the severity of the injury.
- Steroid eye drops should only be administered with the approval of a consulting ophthalmologist). [Ellenhorn and Barceloux: Medical Toxicology].

#### **Section 5 - FIRE FIGHTING MEASURES**

# **EXTINGUISHING MEDIA**

- · Water spray or fog.
- Foam.
- · Dry chemical powder.
- BCF (where regulations permit).
- · Carbon dioxide.

# **FIRE FIGHTING**

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Use fire fighting procedures suitable for surrounding area.
- Do not approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

• Equipment should be thoroughly decontaminated after use.

# FIRE/EXPLOSION HAZARD

- · Non combustible.
- · Not considered to be a significant fire risk.
- Acids may react with metals to produce hydrogen, a highly flammable and explosive gas.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- May emit corrosive, poisonous fumes. May emit acrid smoke.

May emit corrosive fumes.

#### FIRE INCOMPATIBILITY

■ None known.

# **Personal Protective Equipment**

Gas tight chemical resistant suit.

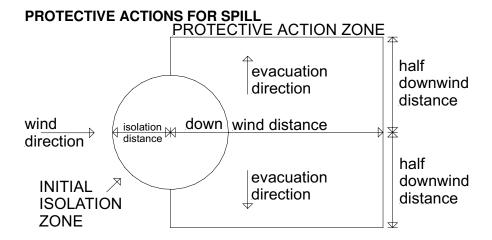
### **Section 6 - ACCIDENTAL RELEASE MEASURES**

#### **MINOR SPILLS**

- · Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable, labelled container for waste disposal.

# **MAJOR SPILLS**

- · Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- · Neutralise/decontaminate residue.
- Collect solid residues and seal in labelled drums for disposal.
- · Wash area and prevent runoff into drains.
- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
- If contamination of drains or waterways occurs, advise emergency services.



From IERG (Canada/Australia)

Isolation Distance 25 metres
Downwind Protection Distance 250 metres

IERG Number 37

# **FOOTNOTES**

- 1 PROTECTIVE ACTION ZONE is defined as the area in which people are at risk of harmful exposure. This zone assumes that random changes in wind direction confines the vapour plume to an area within 30 degrees on either side of the predominant wind direction, resulting in a crosswind protective action distance equal to the downwind protective action distance.
- 2 PROTECTIVE ACTIONS should be initiated to the extent possible, beginning with those closest to the spill and working away from the site in the downwind direction. Within the protective action zone a level of vapour concentration may exist resulting in nearly all unprotected persons becoming incapacitated and unable to take protective action and/or incurring serious or irreversible health effects.
- 3 INITIAL ISOLATION ZONE is determined as an area, including upwind of the incident, within which a high probability of localised wind reversal may expose nearly all persons without appropriate protection to life-threatening concentrations of the material.
- 4 SMALL SPILLS involve a leaking package of 200 litres (55 US gallons) or less, such as a drum (jerrican or box with inner containers). Larger packages leaking less than 200 litres and compressed gas leaking from a small cylinder are also considered "small spills".

LARGE SPILLS involve many small leaking packages or a leaking package of greater than 200 litres, such as a cargo tank, portable tank or a "one-tonne" compressed gas cylinder.

- 5 Guide 154 is taken from the US DOT emergency response guide book.
- 6 IERG information is derived from CANUTEC Transport Canada.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

# **Section 7 - HANDLING AND STORAGE**

# PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- · Avoid contact with moisture.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
- DO NOT allow clothing wet with material to stay in contact with skin.

#### SUITABLE CONTAINER

- Lined metal can, lined metal pail/ can.
- · Plastic pail.
- Polyliner drum.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

#### STORAGE INCOMPATIBILITY

- Dangerous goods of other classes.
- Avoid strong bases.

#### STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

# SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS













+: May be stored together

O: May be stored together with specific preventions

X: Must not be stored together

# Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **EXPOSURE CONTROLS**

Source Material TWA ppm TWA mg/m³ STEL ppm STEL mg/m³

Australia Exposure nitric acid (Nitric 2 5.2 4 10

Standards acid)

The following materials had no OELs on our records

potassium nitrate: CAS:7757- 79- 1
 water: CAS:7732- 18- 5

# **EMERGENCY EXPOSURE LIMITS**

Material Revised IDLH Value (mg/m3) Revised IDLH Value (ppm) nitric acid 25

# **MATERIAL DATA**

POTASSIUM STANDARD SOLUTION (10000PPM):

■ Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations. Present day expectations require that nearly every individual should be protected against even minor sensory irritation and exposure standards are established using uncertainty factors or safety factors of 5 to 10 or more. On occasion animal no-observable-effect-levels (NOEL) are used to determine these limits where human results are unavailable. An additional approach, typically used by the TLV committee (USA) in determining respiratory standards for this group of chemicals, has been to assign ceiling values (TLV C) to rapidly acting irritants and to assign short-term exposure limits (TLV STELs) when the weight of evidence from irritation, bioaccumulation and other endpoints combine to warrant such a limit. In contrast the MAK Commission (Germany) uses a five-category system based on intensive odour, local irritation, and elimination half-life. However this system is being replaced to be consistent with the European Union (EU) Scientific Committee for Occupational Exposure Limits (SCOEL); this is more closely allied to that of the USA.

OSHA (USA) concluded that exposure to sensory irritants can:

- cause inflammation
- · cause increased susceptibility to other irritants and infectious agents
- lead to permanent injury or dysfunction

- · permit greater absorption of hazardous substances and
- acclimate the worker to the irritant warning properties of these substances thus increasing the risk of overexposure.

# NITRIC ACID:

■ For nitric acid:

Odour Threshold Value: 0.27 ppm (detection)

NOTE: Detector tubes for nitric acid, measuring in excess of 5 ppm, are commercially available.

The TLV-TWA is protective against corrosion of the skin, tissue and other membranes, against irritation to the eyes and mucous membranes, and against acute pulmonary oedema or chronic obstructive lung disease. It is not clear whether the TLV-TWA and STEL values will prevent potentiation of the toxicity of inhaled nitrogen dioxide.

#### WATER:

■ Not available. Refer to individual constituents.

# PERSONAL PROTECTION









## **EYE**

- · Safety glasses with side shields.
- · Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

## HANDS/FEET

- Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:
- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739).

- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended.
- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.
- Contaminated gloves should be replaced.

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

- Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber.

#### **OTHER**

- Overalls.
- PVC Apron.
- PVC protective suit may be required if exposure severe.
- Eyewash unit.
- Ensure there is ready access to a safety shower.

#### RESPIRATOR

■ Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

| Breathing Zone Level ppm (volume) | Maximum Protection Factor | Half- face Respirator | Full- Face Respirator |
|-----------------------------------|---------------------------|-----------------------|-----------------------|
| 1000                              | 10                        | AE- AUS P             | -                     |
| 1000                              | 50                        | -                     | AE- AUS P             |
| 5000                              | 50                        | Airline *             | -                     |
| 5000                              | 100                       | -                     | AE- 2 P               |
| 10000                             | 100                       | -                     | AE- 3 P               |
|                                   | 100+                      |                       | Airline**             |

<sup>\* -</sup> Continuous Flow \*\* - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific your Occupational Health and Safety Advisor.

# **ENGINEERING CONTROLS**

■ General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances. If risk of overexposure exists, wear approved respirator. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. Provide adequate ventilation in warehouses and enclosed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

| Type of Contaminant:                            | Air Speed:                     |
|---|--------------------------------|
| solvent, vapours, degreasing etc., evaporating  | 0.25- 0.5 m/s (50- 100 f/min)  |
| from tank (in still air).                       |                                |
| aerosols, fumes from pouring operations,        | 0.5- 1 m/s (100- 200 f/min.)   |
| intermittent container filling, low speed       |                                |
| conveyer transfers, welding, spray drift,       |                                |
| plating acid fumes, pickling (released at low   |                                |
| velocity into zone of active generation)        |                                |
| direct spray, spray painting in shallow booths, | 1- 2.5 m/s (200- 500 f/min.)   |
| drum filling, conveyer loading, crusher dusts,  |                                |
| gas discharge (active generation into zone of   |                                |
| rapid air motion)                               |                                |
| grinding, abrasive blasting, tumbling, high     | 2.5- 10 m/s (500- 2000 f/min.) |
| speed wheel generated dusts (released at high   |                                |
| initial velocity into zone of very high rapid   |                                |
| air motion)                                     |                                |
|   |                                |

Within each range the appropriate value depends on:

Lower end of the range

1: Room air currents minimal or favourable to capture

2: Contaminants of low toxicity or of nuisance value only.

3: Intermittent, low production.

4: Large hood or large air mass in motion

Upper end of the range

1: Disturbing room air currents

2: Contaminants of high toxicity

3: High production, heavy use

4: Small hood- local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

#### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

# **APPEARANCE**

Colourless and odourless liquid; mixes with water.

# **PHYSICAL PROPERTIES**

Mixes with water.

Corrosive.

Acid.

| State                     | LIQUID         | Molecular Weight           | Not Applicable |
|---------------------------|----------------|----------------------------|----------------|
| Melting Range (°C)        | Not Available  | Viscosity                  | Not Available  |
| Boiling Range (°C)        | Not Available  | Solubility in water (g/L)  | Miscible       |
| Flash Point (°C)          | Not Applicable | pH (1% solution)           | Not Available  |
| Decomposition Temp (°C)   | Not Available  | pH (as supplied)           | <1             |
| Autoignition Temp (°C)    | Not Applicable | Vapour Pressure (kPa)      | Not Available  |
| Upper Explosive Limit (%) | Not Applicable | Specific Gravity (water=1) | Not Available  |
| Lower Explosive Limit (%) | Not Applicable | Relative Vapour Density    | Not Available  |
|                           |                | (air=1)                    |                |
| Volatile Component (%vol) | Not Available  | Evaporation Rate           | Not Available  |

# Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

# CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

# Section 11 - TOXICOLOGICAL INFORMATION

# POTENTIAL HEALTH EFFECTS

#### **ACUTE HEALTH EFFECTS**

#### **SWALLOWED**

- Considered an unlikely route of entry in commercial/industrial environments.
- The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (eg. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

#### FYF

■ This material can cause eye irritation and damage in some persons.

#### SKIN

- Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.
- This material can cause inflammation of the skin oncontact in some persons.
- The material may accentuate any pre-existing dermatitis condition.

#### **INHALED**

- Not normally a hazard due to non-volatile nature of product.
- The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

# **CHRONIC HEALTH EFFECTS**

■ Principal routes of exposure are by accidental skin and eye contact and by inhalation of vapours especially at higher temperatures.

As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

#### TOXICITY AND IRRITATION

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

2A

■ None assigned. Refer to individual constituents.

CARCINOGEN

Nitrate or nitrite International Agency Group

(ingested) under for Research on Cancer conditions that result (IARC) - Agents

in endogenous Reviewed by the IARC

nitrosation Monographs

# **Section 12 - ECOLOGICAL INFORMATION**

Refer to data for ingredients, which follows:

# NITRIC ACID:

POTASSIUMSTANDARDSOLUTION(10000PPM):

■ Prevent, by any means available, spillage from entering drains or water courses.

POTASSIUMSTANDARDSOLUTION(10000PPM):

Marine Pollutant: Not Determined

#### NITRIC ACID:

■ For oxides of nitrogen:

Environmental fate

Oxides of nitrogen are part of the biogeochemical cycling of nitrogen, and are found in air, soil and water. In the atmosphere, oxides of nitrogen are rapidly oxidised to nitrogen dioxide (half-life about 50 days), which dissolves in water to produce dilute nitric acid and precipitates in rain. An increased rate of formation of oxides of nitrogen therefore contributes to 'acid rain'.

In the stratosphere, oxides of nitrogen play a crucial role in maintaining the level of ozone. Ozone is formed through the photochemical reaction of nitrogen dioxide and oxygen. However, too little nitrogen dioxide results in too little ozone being formed, On the other hand, too much nitric oxide reduces the level of ozone because of an increase in the reaction of ozone to convert nitric oxide to nitrogen dioxide. In the lower atmosphere, oxides of nitrogen play a major role in the formation of photochemical smog in a complex set of reactions that lead to the formation of a variety of nitrated organic compounds (from volatile organic matter) and excessive levels of ozone.

Environmental transport The oxides of nitrogen travel as gases through soil and the atmosphere, and in solution in water in soils, rivers and lakes, and rain and snow.

■ DO NOT discharge into sewer or waterways.

## POTASSIUM NITRATE:

■ The nitrates are of environmental concern because of their high water solubility and consequent leaching, diffusion, and environmental mobility in soil and water. Nitrate can contaminate groundwater to unacceptable levels. Nitrite is formed from nitrate or ammonium ion by micro-organisms in soil, water, sewage and the alimentary tract. The concern with nitrate in the environment is related to its conversion to nitrite. Methaemoglobinaemia is caused following exposure to high levels of nitrite and produces difficulties in oxygen transport in the blood. Thousands of cases involving poisoning of infants, particularly in rural areas, have been reported as a result of drinking nitrate rich well-water.

Other concerns deriving from exposure to environmental nitrates relate to the production of nitrosamines following the reaction of food nitrites and secondary amines. Other nitroso-compounds may result following reaction with nitrites and amides, ureas, carbamates and other nitrogenous compounds. Nitrosamines produce liver damage, haemorrhagic lung lesions, convulsions and coma in rats, and teratogenic effects in experimental animals.

The N-nitroso class of compounds include potent carcinogens and mutagens: induction of tumors by single doses of N-nitroso compounds testify to this.

|  | 0 |  |  |  |  |
|--|---|--|--|--|--|
|  |   |  |  |  |  |
|  |   |  |  |  |  |
|  |   |  |  |  |  |

| Ingredient        | Persistence:<br>Water/Soil | Persistence: Air | Bioaccumulation | Mobility |
|-------------------|----------------------------|------------------|-----------------|----------|
| nitric acid       |                            |                  | LOW             |          |
| potassium nitrate | LOW                        |                  | LOW             | HIGH     |
| water             | LOW                        |                  | LOW             | HIGH     |

#### Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Treat and neutralise at an approved treatment plant. Treatment should involve: Neutralisation with soda-ash or soda-lime followed by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers with 5% aqueous sodium hydroxide or soda ash, followed by water. Observe all label safeguards until containers are cleaned and destroyed.

# **Section 14 - TRANSPORTATION INFORMATION**

# **HAZCHEM:**

□ None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG

#### Section 15 - REGULATORY INFORMATION

## REGULATIONS

Regulations for ingredients

nitric acid (CAS: 7697-37-2) is found on the following regulatory lists;
"Australia Exposure Standards", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 5", "Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Carried In Schedules", "IND Description of the Schedules", "IND Description of the Noxious Liquid Substances Carried in Bulk", "International Carried In Schedules", "IND Carried In Schedules, "I "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals"

# potassium nitrate (CAS: 7757-79-1) is found on the following regulatory lists;

Australia Inventory of Chemical Substances (AICS)","International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals"

## water (CAS: 7732-18-5) is found on the following regulatory lists:

"Australia Inventory of Chemical Substances (AICS)", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "OECD Representative List of High Production Volume (HPV) Chemicals"

No data for Potassium Standard Solution (10000MG/L) (59208)

## **Section 16 - OTHER INFORMATION**

#### **MSDS SECTION CHANGES**

The following table displays the version number of and date on which each section was last changed.

| Section Name                               | Version | Date         | Section Name                           | Version | Date         | Section Name                | Version | Date         |
|--|---------|--------------|--|---------|--------------|-----------------------------|---------|--------------|
| Ingredients                                | 4       | 7- Feb- 2007 | Storage (storage incompatibility)      | 4       | 7- Feb- 2007 | Physical<br>Properties      | 4       | 7- Feb- 2007 |
| Advice to Doctor                           | 4       | 7- Feb- 2007 | Storage (suitable container)           | 4       | 7- Feb- 2007 | Acute Health (eye)          | 4       | 7- Feb- 2007 |
| First Aid<br>(inhaled)                     | 4       | 7- Feb- 2007 | Engineering<br>Control                 | 4       | 7- Feb- 2007 | Acute Health (inhaled)      | 4       | 7- Feb- 2007 |
| First Aid<br>(swallowed)                   | 4       | 7- Feb- 2007 | Exposure Standard                      | 4       | 7- Feb- 2007 | Àcute Héalth<br>(skin)      | 4       | 7- Feb- 2007 |
| Fire Fighter<br>(extinguishing<br>media)   | 4       | 7- Feb- 2007 | Personal<br>Protection (eye)           | 4       | 7- Feb- 2007 | Acuté Health<br>(swallowed) | 4       | 7- Feb- 2007 |
| Fire Fighter (fire incompatibility)        | 4       | 7- Feb- 2007 | Personal<br>Protection<br>(hands/feet) | 4       | 7- Feb- 2007 | Chronic Health              | 4       | 7- Feb- 2007 |
| Fire Fighter<br>(fire/explosion<br>hazard) | 4       | 7- Feb- 2007 | Personal<br>Protection (other)         | 4       | 7- Feb- 2007 | Environmental               | 4       | 7- Feb- 2007 |
| Spills (major)                             | 4       | 7- Feb- 2007 | Appearance                             | 4       | 7- Feb- 2007 | Disposal                    | 4       | 7- Feb- 2007 |
| Handling Procedure                         | 4       | 7- Feb- 2007 |  |         |              |                             |         |              |

The above information is believed to be accurate and represent the best information currently available to us, but does not represent any warranty expressed or implied of the properties of the product. User should make their own investigation to determine the suitability of the information for their particular purpose.