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**NASCO SOLDERS  
AND FLUXES**



**NATIONAL SOLDER**

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**12/08/2011**

## 1.IDENTIFICATION

**Product Name:**

**SPIRITS OF SALTS**

### **Recommended Use:**

Brick cleaning, concrete cleaning, surface rust removal

**Supplier:**

**National Solder Co**

**Address:**

13 Arkin Street, Industries East, Germiston, 1401.

PO Box 1258 031, Germiston, 1400

**Telephone:**

(+27) 11 873 9000

**Facsimile:**

0118254528

**Website:**

[www.nationalsolder.com](http://www.nationalsolder.com)

**Emergency phone:**

**Drug & Poison Centre**

**0800333444 or 011 6422417**

## 2. HAZARDS IDENTIFICATION

Product is classified as hazardous according to Schedules 1 to 6 of the *Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001* of the HSNO Act, 1996.

**HSNO Classifications:** 6.1B (inhalation), 6.1D (oral, dermal),8.1A, 8.2B, 8.3A, 9.1D, 9.3C

**Signal word:** **DANGER**

### **Hazard Statements :**

H290 May be corrosive to metals

H302 Harmful if swallowed

H312 Harmful in contact with skin

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H330 Fatal if inhaled

H402 Harmful to aquatic life

H433 Harmful to terrestrial vertebrates

### **Prevention Statements :**

P102 Keep out of reach of children.

P103 Read label before use.

P234 Keep only in original container

P260 Do not breathe mist or vapours

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when handling.

P271 Use only outdoors or in well-ventilated area.

P273 Avoid release to environment.

P280 Wear protective gloves and eye protection.  
P284 Wear respiratory protection in confined spaces/poorly ventilated areas

### 3. COMPOSITION : Information on Ingredients

CHEMICAL INGREDIENT	CAS No.	PROPORTION (%W/V)
Hydrogen chloride	7647-01-0	37 – 39
Water	7732-18-5	balance

### 4. FIRST AID MEASURES

If medical advice needed contact Drug & Poison Centre (0800333444) or a doctor. Have product container or label available.

#### Swallowed

If swallowed, do NOT induce vomiting. Rinse mouth. Get immediate medical attention. If spontaneous vomiting occurs, hold patient's head below hips to avoid possible aspiration of vomitus into lungs.

#### Skin Contact

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Get immediate medical attention.

#### Eye Contact

Hold eyelids apart and flush the eye continuously with running water. Continue flushing for at least 15 minutes. Remove contact lenses if present and easy to do, after the first 5 minutes and continue rinsing. Get immediate medical attention.

#### Inhalation

Move the victim to fresh air immediately. Keep warm and at rest. Get medical attention. if recovery is not rapid or any discomfort or symptoms persist.

**First Aid Facilities:** Provide eye bath and hand washing facilities.

**Advice to Doctor:** Treat according to symptoms.

### 5. FIRE FIGHTING MEASURES

**Flashpoint:** Non flammable

**Flammable limits:** LFL : - UFL: -

**Extinguishing media:**

Water fog, foam, CO<sub>2</sub> or dry chemical. Use media suitable for surrounding materials.

**Fire & Explosion hazards:**

Will not burn. Keep containers cool with water. Pressurized containers may explode. Forms corrosive fumes on contact with air. Contact with metals will result in formation of flammable hydrogen. High temperature will cause thermal decomposition.

**Firefighting Equipment:**

Full protective clothing and self-contained breathing apparatus (SCBA).

**In event of fire:**

EMERGENCY SERVICES (107); advise location and nature of hazard.

Keep bystanders away.

Wear breathing apparatus and personal protective equipment (acid resistant clothing, protective gloves for hands/arms, eye protection) .

Allow trained personnel to attend a fire in progress, providing fire-fighters with this Safety Data Sheet.

Prevent product and extinguishing media from escaping to drains and waterways.

**Hazards from combustion products:**

Toxic fumes of hydrogen chloride. Reactions with other materials may form toxic chlorine gas.

**6. ACCIDENTAL RELEASE MEASURES****Emergency Procedures & Containment:**

Refer to "Fire Fighting Measures", "First Aid Measures" and "Stability and Reactivity".

**Minor spills**

Clean up spills immediately.

Avoid breathing vapours and contact with skin and eyes.

Wear personal protective equipment of acid resistant materials.

Contain and neutralize, e.g. sodium bicarbonate.

Absorb small quantities with vermiculite or other absorbent material.

Collect residues and waste material in a suitable labeled container.

Seal container and dispose of safely.

**Major spills**

Clear area of personnel and move upwind.

Emergency number (107); advise location and nature of hazard.

Wear breathing apparatus plus protective gloves/eye protection.

Stop leak if safe to do so.

Contain spill.

Prevent by any means available, spillage from entering drains, sewers, watercourses, or low lying areas.

Increase ventilation if spill indoors or confined area.

Neutralize spill in if water, e.g. use sodium bicarbonate.

Collect recoverable product into labeled contains for recycling or disposal.

Absorb remaining product with sand, earth or vermiculite.

Collect solid residues and seal in labeled drums for disposal.  
Wash area and prevent run off into drains.  
If contamination of drains or waterways occurs, advise Emergency Services and Local or Regional authority.

## 7. HANDLING AND STORAGE

### Precautions for safe handling:

Read product label and instructions before use. Use in well-ventilated area. Avoid all personal contact including skin and by inhalation. Wear protective clothing, gloves and eye protection.

Chemical resistant clothing recommended. Wash hands, arms and exposed skin hands thoroughly with soap and water after handling. Avoid release to environment.

### Conditions for safe storage:

Store in original packaging in a cool, dry well-ventilated place out of reach of children. Check containers periodically for leaks or distortion.

### Incompatible materials:

Strong oxidizers, alkalis, chemically active metals (e.g. aluminium, magnesium, sodium, potassium), many organic compounds.

## 8. EXPOSURE CONTROLS : PERSONAL PROTECTION

### Health Exposure Standards:

Workplace Exposure Standards (WES) have been set by the Occupational Safety and Health Safety Act, component in this product.

WES-TWA Hydrogen chloride ceiling, 5 ppm (7.5 mg/m<sup>3</sup>)

**Biological limit values:** None established

### Engineering Controls:

**Ventilation:** Avoid breathing mists or vapours. Use product outdoors or in well-ventilated area. Wear a SAA approved respirator when using in confined area or where over-exposure risk exists.

### Personal Protective Equipment:

**Respiratory Protection:** Where air concentration may exceed Workplace Exposure Standard, wear SAA approved respiratory protection.

**Eye Protection:** Protect eyes from fumes or vapours and splashes. Always use safety glasses with side shields, or wear goggles.

### **Skin/ Body Protection:**

Wear gloves, e.g. natural rubber, neoprene, nitrile rubber, PVC. Wear safety footwear or safety gumboots, e.g. rubber, and clothing with long sleeves and long trousers or coveralls. Acid resistant overalls recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	Unit of measurement	Typical value
Appearance	-	Clear liquid
Odour	-	Characteristic, pungent
Flash Point	°C	>93
Auto-ignition temperature	°C	Not known
Boiling point	°C	Not known
Specific gravity @ 20°C	g/ml	1.03
Vapour Pressure @ 20°C	kPa	Not available
Vapour Density @ 20°C	kPa	Not available
Flammability Limits in Air	%	Not available
Viscosity	cSt	Not available
Volatiles	%vol/vol	100
Alkalinity/acidity (as pH)	-	Very acidic
Solubility in Water	% w/w	Soluble

The values listed are indicative of this product's physical and chemical properties

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable at room temperature and pressure.

**Conditions to avoid:** Contact with incompatible materials (refer Hazardous reactions).attacks some plastics, rubber and coatings.

### Hazardous decomposition products:

See "Fire Fighting Measures" and "Hazardous Reactions".

**Hazardous reactions:** Highly corrosive to most metals forming flammable hydrogen gas. Reacts violently with bases and oxidizers to form toxic chlorine gas.

Reacts with many other alkalis and organic materials.

## 11. TOXICOLOGICAL INFORMATION

### Acute Effects

#### **Ingestion**

Harmful if swallowed. Will burn and cause pain to throat, trachea, respiratory tract and gastrointestinal tract.

#### **Eye Contact**

This product will cause serious damage to eyes.

#### **Skin Contact**

This product will cause pain and burns to skin. It is important to wash any skin contamination off immediately and thoroughly.

#### **Inhalation**

Vapours may be toxic and cause severe discomfort, irritation or burning to the upper respiratory tract. Possible symptoms are cough and chest pain and may develop as rapid breathing, shock, blood pressure changes and respiration distress.

**Chronic Effects:** No specific additional information.

**Other Health Effects Information:** Not available.

**Toxicological Information:**

Hydrogen chloride  
Oral, LD<sub>50</sub>, rat 700 mg/kg  
Dermal, LD<sub>50</sub> mouse 1449 mg/kg  
Inhalation, LC<sub>50</sub> (4hr), mouse 3.2 mg/L

**12. ECOLOGICAL INFORMATION****Ecotoxicity:**

**Aquatic toxicity:** This product is harmful to aquatic life.  
Do not discharge product direct to sewer, drains or waterways.

**Persistence/degradability:** Not expected to be persistent or bio-accumulative in environment.

**Mobility:** Product is soluble in water.

**Other information:** Product is classified as harmful to terrestrial vertebrates.

**Ecotoxicity Information:**

Hydrogen chloride	Freshwater fish	LC <sub>50</sub> (96hr) 20.5 mg/L
	<i>Daphnia magna</i>	LC <sub>80</sub> (72hr) 56 mg/L

**Environmental Exposure Standards:**

EEL (WATER):	Not set
EEL (SOIL)	Not set
EEL (SEDIMENTS)	Not set

**13. DISPOSAL CONSIDERATIONS****Disposal Methods:**

Empty packaging should be disposed of through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national, regional and local authority regulations.  
Packaging may still contain product residue

**14. TRANSPORT INFORMATION**

UN Number: 1789  
Shipping name: HYDROCHLORIC ACID  
Class: 8  
Sub-class: 6.1  
Packing group: II  
Hazchem code: 2R

**Dangerous Goods Segregation**

This product is classified as Dangerous Good Class 8.

**15. REGULATORY INFORMATION**

**Country: South Africa**

## **16. OTHER INFORMATION**

**Date of Issue:** 12<sup>th</sup> August 2011

**Reasons for Issue:** New Safety Data Sheet

**Replaces:** -

**Abbreviations:**

CAS No Chemical Abstracts Number

ERMA Environmental Risk Management Authority

HSNO Hazardous Substances and New Organisms

NZCI New Zealand Chemical Inventory

STEL Short Term Exposure Limit

TWA Time Weighted Average

WES Workplace Exposure Standard

**References:**

Supplier Material Safety Data Sheet

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses, but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact National Solder Co.

END OF SAFETY DATA SHEET