



# BLACK SWAN MFG. CO.

## MATERIAL SAFETY DATA SHEET



### SECTION 1 - IDENTIFICATION

<b>Manufacturer:</b> Black Swan Manufacturing Co. 4540 W. Thomas Street Chicago, IL 60651-3318 Telephone: 1-800-252-5796 Fax: 1-773-227-3705 Web Site: <a href="http://www.blackswanmfg.com">www.blackswanmfg.com</a> E-mail: <a href="mailto:info@blackswanmfg.com">info@blackswanmfg.com</a>	<b>Distributed in the UK by:</b> Mark Vitow Limited Unit 9 Delta Court Manor Way Borehamwood WD6 1FJ Telephone: +44 (0)208 207 3784 Web Site: <a href="http://www.markvitow.com">www.markvitow.com</a> E-mail: <a href="mailto:sales@markvitow.com">sales@markvitow.com</a>
<b>Product Name:</b> <p style="text-align: center;"><b>Spirit of Salts</b></p>	<b>Recommended Use:</b> <p style="text-align: center;">For removal of lime, scale, concrete and rust from air conditioning equipment, refrigerator drains, etc.</p>

### SECTION 2 - HAZARD(S) IDENTIFICATION

<p style="text-align: center;"><b>Label</b></p> <p>Corrosive    Env. Haz.    Poison</p> <p>Harmful    Irritant</p>	<p style="text-align: center;"><b>NFPA</b></p> <p><b>HEALTH HAZARD</b>          4 Deadly          3 Extreme Danger          2 Hazardous          1 Slightly Hazardous          0 Normal Material</p> <p><b>FIRE HAZARD</b> Flash Points          4 Below 73°F (Boiling pt. below 100°F)          3 Below 73°F (Boiling pt. at/above 100°F) and/or at/above 73°F - not exceeding 100°F          2 Above 100°F, Not exceeding 200°F          1 Above 200°F          0 Will not burn</p> <p><b>INSTABILITY</b>          4 May detonate          3 Shock and heat may detonate          2 Violent chemical changes          1 Unstable if heated          0 Stable</p> <p><b>SPECIFIC HAZARD</b>          Oxidizer OX          Use NO WATER W-          Simple Asphyxiant SA</p>	<p style="text-align: center;"><b>HMIS</b></p> <p><b>HEALTH</b>    3  <b>FLAMMABILITY</b>    0  <b>REACTIVITY</b>    1</p> <p>PPE    H</p> <p>0 Minimal Hazard          1 Slight Hazard          2 Moderate Hazard          3 Serious Hazard          4 Severe Hazard</p>
<p style="text-align: center;"><b>Health</b></p> <p>Acute Toxicity:    Cat. 4          Skin Corrosion:    Cat. 1          Eye Irritation:    Cat. 2B          Skin Sensitization:    NO</p>	<p style="text-align: center;"><b>Environmental</b></p> <p>Acute Toxicity:    N/A          Chronic Toxicity:    N/A</p>	<p style="text-align: center;"><b>Physical</b></p> <p>Flammability:    N/A          Other:    N/A</p>
<p style="text-align: center;"><b>Hazardous Statement</b></p> <p><b>Danger. Poison!</b>          May be fatal if swallowed.          Causes severe burns.          Vapors harmful.          May cause blindness.</p>	<p style="text-align: center;"><b>Precautionary Statement</b></p> <p>Avoid contact with skin and eyes.          Keep out of reach of children.          Do not allow to be taken internally.          Use only in a well ventilated are. Avoid breathing vapors.</p>	

### SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<u>Hazardous Chemicals</u>	<u>CAS #</u>	<u>EINECS#</u>	<u>Approx %</u>
HYDROGEN CHLORIDE	7647-01-0	231-595-7	35%

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## SECTION 4 - FIRST-AID MEASURES

**Inhalation:** Remove victim to fresh air. If breathing is difficult, oxygen may be beneficial, if administered by a person trained in its use, preferably on a physician's advise. Ensure victim is completely at rest. Do not allow any physical exertion. Symptoms may be delayed up to 48 hours after exposure. Get immediate medical attention.

**Skin:** Immediately flush with lukewarm, gently flowing water for at least 20-30 minutes. Under running water, remove contaminated clothing and shoes. Get immediate medical attention. Completely decontaminate clothing and shoes before re-use.

**Eyes:** Flush immediately with lukewarm water for at least 20-30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye/lid tissue. If irritation persists, repeat flushing. Get immediate medical attention.

**Ingestion:** Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give large quantities of water. If milk is available, it may be given after the water has been given. If vomiting occurs spontaneously, keep airway clear and give more water. Get immediate medical attention.

## SECTION 5 - FIRE-FIGHTING MEASURES

<u>Extinguishing Media</u>	<u>Specific Hazards</u>	<u>Protective Equipment</u>										
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><u>Suitable</u></td> <td style="width: 50%; border: none;"><u>Unsuitable</u></td> </tr> <tr> <td style="border: none;">Water fog</td> <td style="border: none;">Hydrogen chloride gas</td> </tr> <tr> <td style="border: none;">Foam</td> <td style="border: none;">Hydrogen</td> </tr> <tr> <td style="border: none;">Dry Chemical</td> <td></td> </tr> <tr> <td style="border: none;">Carbon Dioxide</td> <td></td> </tr> </table>	<u>Suitable</u>	<u>Unsuitable</u>	Water fog	Hydrogen chloride gas	Foam	Hydrogen	Dry Chemical		Carbon Dioxide		Contact with common metals may produce flammable, and potentially explosive hydrogen gas.	Self-contained breathing apparatus {(SCBA), MSHA/NIOSH}. Full protective gear.
<u>Suitable</u>	<u>Unsuitable</u>											
Water fog	Hydrogen chloride gas											
Foam	Hydrogen											
Dry Chemical												
Carbon Dioxide												
<b><u>Special Firefighting Procedures</u></b>												
Firefighters and others who might be exposed to products of combustion should wear (NIOSH approved) positive pressure self-contained breathing apparatus and full protective clothing. Neutralize with soda ash and slaked lime.												

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.

**Protective Equipment:** None.

**Emergency Procedures:** None.

**Environmental Precautions:** Avoid runoff into storm sewers, ditches, and waterways.

**Methods for Cleaning-Up:** Evacuate area, keep upwind until gas has dispersed. If necessary to enter spill area, wear approved full face respirators with acid cartridges. Wear acid resistant clothing.  
 Large Spills: Wear self contained breathing apparatus and full protective clothing including shoes. Build a dike around the spill. Neutralize with Lime or Soda Ash. Clean and dispose in accordance with Federal, State and Local regulations.

**Other Precautions:** None.

## SECTION 7 - HANDLING AND STORAGE

<u>Handling</u>	<u>Storage</u>
Do not get in eyes, on skin or on clothing. Avoid breathing vapors or mist. Wash thoroughly after handling. Do not mix with cyanides, sulfides or formaldehyde.	Store in original containers and away from heat. Keep containers closed when not in use. Store in a cool place. Keep away from heat, sparks and flames.

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## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>OSHA Exposure Limits</u>		
<u>Hazardous Components</u>	<u>ACGIH-TLV</u>	<u>OSHA-PEL</u>
HYDROGEN CHLORIDE	5 ppm	5 ppm
<b><u>Personal Protective Equipment</u></b>		
<b>Respiratory Protection:</b>	Full face respirator with HCL fumes cartridges for response to small spills. Self contained breathing apparatus.	
<b>Ventilation:</b>	Local ventilation is adequate.	
<b>Other Protective Equipment:</b>	<u>Protective Gloves</u> Rubber/Plastic Gloves.	<u>Eyes and Face Protection</u> Chemical Safety Goggles OR Safety Glasses/Faceshield.
		<u>Other Protective Equipment</u> None.
<b>Other Precautions:</b>	None.	
<b><u>Engineering Controls</u></b>		
None.		

## SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance:</b> Light Yellow <b>Odor:</b> Pungent/Acid odor <b>Odor Threshold:</b> N/A <b>pH:</b> N/A <b>Melting/Freezing Point:</b> N/A <b>Boiling Point:</b> 181°F / -51°F <b>Boiling Range:</b> N/A <b>Flash Point:</b> N/A <b>Evaporation Rate:</b> > 1.0 <b>Flammability:</b> N/A <b>Flammability Limits:</b> LEL: N/A ; UEL: N/A	<b>Volatile by Volume:</b> N/A <b>Vapor Pressure:</b> 35 <b>Vapor Density:</b> 1.27 <b>Relative Density:</b> N/A <b>Solubility:</b> Complete <b>Partition Coefficient: n-octanol/water:</b> N/A <b>Auto-ignition Temperature:</b> N/A <b>Specific Gravity (H2O=1):</b> 1.16 <b>Viscosity:</b> N/A <b>VOC:</b> 0 g/l
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## SECTION 10 - STABILITY AND REACTIVITY

<u>Stability</u>	<u>Hazardous Polymerization</u>	<u>Conditions To Avoid</u>
Stable    Unstable <input checked="" type="checkbox"/> <input type="checkbox"/>	May Occur    Will Not Occur <input type="checkbox"/> <input checked="" type="checkbox"/>	Open flames, sparks, and ignition sources. Very corrosive to most metals. Avoid heating to decomposition.
<b><u>Incompatible Materials</u></b>		<b><u>Hazardous Decomposition Products</u></b>
Strong oxidizers such as liquid chlorine, sodium or calcium hypochloride, pure oxygen, reducing agents, metals, bases, aldehydes, epoxides, explosives, acetylides, borides, carbides, silicides, cyanides, sulfides and phosphides.		Carbon monoxide, oxides or sulfur and other decomposition products may form from incomplete combustion. Heat can cause evolution of gaseous hydrogen chloride.

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## SECTION 11 - TOXICOLOGICAL INFORMATION

<u>Likely Routes of Exposure</u>	<u>Symptoms/Effects</u>	
Inhalation <input checked="" type="checkbox"/>	Corrosive and irritating to respiratory tract. Results in coughing, choking and inflammation of the respiratory tract. Will cause severe burns unless washed off immediately. Repeated skin contact may lead to dermatitis. Causes severe irritation and painful burns to the eyes and eye lids. Failure to irrigate the eyes immediately with copious amounts of water, could cause visual impairment and/or total loss of vision. <b>Corrosive</b> to mouth and stomach. <b>Do not induce vomiting.</b>	
Skin Contact <input checked="" type="checkbox"/>		
Eye Contact <input checked="" type="checkbox"/>		
Ingestion <input checked="" type="checkbox"/>		
<b>Long-Term Effects:</b>	Prolonged exposure to low level concentration of hydrochloric acid vapor may cause discoloration and erosion of teeth, bleeding of nose and gums, and ulcers of the nasal mucosa. It may aggravate asthma, bronchitis, emphysema, bronchial hyperactivity, skin allergies and eczema.	
<b>Hazardous Components</b> HYDROGEN CHLORIDE	<b>Toxicity</b> <b>LD<sub>50</sub></b> Oral: 900 mg/Kg (rabbit)	<b>LC<sub>50</sub></b> Inhalation: 5,666 ppm @ 30 min.

## SECTION 12 - ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	This material is expected to be toxic to aquatic life.
<b>Persistence &amp; Degradability:</b>	None.
<b>Bioaccumulative Potential:</b>	None.
<b>Mobility in Soil:</b>	None.
<b>Other Adverse Effects:</b>	None.

## SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with local regulations.

## SECTION 14 - TRANSPORTATION INFORMATION

<u>Shipping Information</u>		<b>Exception to the rule:</b> If the package that contains the hazardous material is in a small consumer size (1L or less) then the rules that apply to shipping hazardous materials do not apply.
<b>Shipping Name:</b>	Hydrochloric Acid, Solution	
<b>Hazardous Class:</b>	8	
<b>I.D. Number:</b>	UN1789	
<b>Packing Group:</b>	II	
<b>Label Required:</b>	Corrosive	
<b>Marine Pollutant:</b>	No	

## SECTION 15 - REGULATORY INFORMATION

None.

## SECTION 16 - OTHER INFORMATION

This product is sold on the understanding that Mark Vitow Ltd accepts no liability whatsoever for any loss, injury or damage directly or indirectly for any purpose other than that recommended by Mark Vitow Ltd or if the product is not used strictly in accordance with instructions and/or directions.