 **MATERIAL SAFETY DATA SHEET:**  
**Dihydrogen Monoxide**  
Synonyms: Hydric Acid; Hydrogen Hydroxide, Dihydrogen Oxide

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**MANUFACTURER:**  
Mother Nature, Inc.

**ADDRESS:**  
Multiple places and suppliers located all over the planet

**PHONE NUMBER(S) (FOR INFORMATION):**  
NOAA (202) 482-6090  
EPA (800) 426-4791

**DATE PREPARED:**  
December 19, 2007

**PREPARED BY:**  
Chem-Safe, Inc.

**CAS NUMBER *:**  
7732-18-5

**FORMULA(S) OF MAJOR CONSTITUENTS**

<table>
<thead>
<tr>
<th>FORMULA(S) OF MAJOR CONSTITUENTS</th>
<th>MSDS NUMBER *:</th>
<th>CAS NUMBER *:</th>
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<tr>
<td>H – (OH)</td>
<td>-</td>
<td>7732-18-5</td>
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**COMPONENTS - Chemical/common names**

(Hazardous components 1% or greater) %* | OSHA PEL | ACGIH TLV | Other limits recommended
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Dihydrogen monoxide | ± 100 | - | - | Avoid prolonged skin contact
Dissolved misc. solids | ± 20 | - | - | Ingest with extreme caution
Dissolved misc. gases | ± 20 | - | - | Do not smell

**Non-hazardous ingredients:**  
0 - 100

**TOTAL**  
100

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**SECTION 2 - PHYSICAL/CHEMICAL CHARACTERISTICS**

**BOILING POINT:**  
100°C

**SPEC. GRAV. (WATER = 1):**  
1.00

**VAPOR PRESSURE (mm Hg@TEMP.):**  
23.76 @ 25°C

**MELTING POINT:**  
0.0°C

**VAPOR DENSITY (AIR = 1):**  
23 g/mL³

**EVAP. RATE (Water = 1):**  
1.0 ± 0.05

**SOLUBILITY IN WATER:**  
100%

**WATER REACTIVE:**  
No

**pH:**  
7.00 (but variable, due to contaminants)

**OTHER:**  
Absorbed by most plants

**APPEARANCE AND ODOR:**  
Colorless non-viscous liquid, but variable, due to contaminants
SECTION 3 - FIRE AND EXPLOSION HAZARD DATA

FLASH PT./METHOD USED: N/A
AUTO-IGNITION TEMP.: N/A
FLAMM. LIMITS IN AIR (% BY VOL.): N/A
LEL: -
UEL: -

SPECIAL FIRE FIGHTING PROCEDURES: Prolonged contact will wrinkle skin. Will saturate clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Odor (from contaminants) can be overpowering. Low coefficient of friction may cause slippage and explosive verbal comments! In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full-face mask operated in a positive pressure mode. Use extinguishing media appropriate for surrounding fire.

SECTION 4 - REACTIVITY HAZARD DATA

STABLE (x) UNSTABLE ( ) CONDITIONS TO AVOID: Contact with clothes (particularly silk and wool)
INCOMPATIBILITY (MATERIALS TO AVOID): Prolonged contact with skin
HAZARDOUS DECOMPOSITION PRODUCTS: Potent oxidizer and explosive gas
HAZARDOUS POLYMERIZATION: MAY OCCUR ( ) WON'T OCCUR (x)
CONDITIONS TO AVOID: Deposition (as liquid) on floors and carpets, or sidewalks (in solid phase)
Contact with vapors above the boiling point will cause extreme pain

SECTION 5 - HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY:
(x) INHALATION (x) INGESTION (x) SKIN ABSORPTION ( ) NOT HAZARDOUS
CARCINOGEN LISTED IN: ( ) NTP ( ) OSHA ( ) IARC MONOGRAPH (x) NOT LISTED

ACUTE HEALTH HAZARDS: Aspiration can cause death in less than two minutes!
CHRONIC HEALTH HAZARDS: May cause bloating, abdominal distension, frequent urinary activity, coughing, ear aches, epidermal distortions, and more.

SIGNS/ SYMPTOMS OF EXPOSURE: Extreme wrinkling of skin; gagging; coughing; responsible for injury, death, and property damage all over the world.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Extreme diuretic

EMERGENCY FIRST AID PROCEDURES - Seek medical assistance for further treatment

EYE CONTACT: Flush with luke-warm water.
SKIN CONTACT: Wash with soap and hot water. Dry thoroughly.
INHALATION: Move victim from immediate vicinity of substance. Begin CPR, if not breathing.
INGESTION: Consult your municipal utilities board or local poison control authorities.
SECTION 6 - CONTROL AND PROTECTIVE MEASURES

( x ) RESPIRATORY PROTECTION (SPECIFY TYPE):  Do not inhale the liquid
( x ) PROTECTIVE GLOVES: Household grade rubber.
( x ) EYE PROTECTION: Chemical splash goggles
( x ) LOCAL EXHAUST  ( x ) MECHANICAL (General pump)  ( ) SPECIAL: None
OTHER PROTECTIVE CLOTHING/EQUIPMENT: Boots and water-proof lab apron or clothing.
HYGIENIC WORK PRACTICES: Wash exposed skin thoroughly, after contact.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE/LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED: Use absorbent materials, if in liquid state and utilize mechanical scooping devices, if in a solid state
WASTE DISPOSAL METHODS: Dispose in accordance with all applicable Federal, State, and Local environmental regulations.
PRECAUTIONS NEEDED IN HANDLING/STORAGE: Wear waterproof clothing, because contact with this material, in the liquid phase, will saturate clothing and all nearby objects.
OTHER PRECAUTIONS AND/OR SPECIAL HAZARDS: Keep container tightly closed. This is suitable for any general chemical storage area. Dihydrogen monoxide is considered to be a non-regulated product, but reacts vigorously with some materials. These include sodium, potassium, and other alkali metals, with elemental fluorine, and strong dehydrating agents such as sulfuric acid or calcium oxide. It forms explosive gases with calcium carbide. It is incompatible with strong reducing agents, acid chlorides, phosphorus trichloride, phosphorus pentachloride, and phosphorus oxychloride. Avoid contact with all materials until investigation shows substance is compatible. Expands significantly, upon freezing. If there is a possibility of freezing, do not store in rigid containers, as there is a possible explosion hazard. Has been known to kill over 200,000 people in less than six hours.

NFPA RATING: HEALTH (0-4) FLAMMABILITY (0) REACTIVITY (0-1) SPECIAL (COR)
HMIS RATING: HEALTH (0-4) FLAMM. (0) REACT. (0-1) PERSONAL PROTECTION (-)