

SAFETY DATA SHEET

GHS format

SECTION 1 IDENTIFICATION

Product Name: Hy-Sol, Hydro-Balance**Product Number(s):** H-1200**Product Use:** Refrigeration Coil Cleaner**Restrictions on use:** None known**Distributed by:** Hydro-Balance Corporation**Manufactured by:** North American Research Corporation

P.O. Box 1318

519 Huffines Blvd.

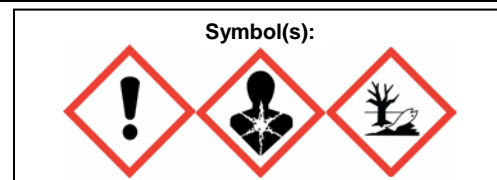
Lewisville, TX 75067

Lewisville, TX 75056

Telephone Numbers: (972) 492-1800, (800) 527-7520, Fax (972) 394-6755**Emergencies:** Infotrac (24 hours, everyday) (800) 535-5053 (US & Canada) 1 (352) 323-3500 (International)

SECTION 2 HAZARD(S) IDENTIFICATION

Classification	Category
Skin corrosion / irritation	2
Carcinogenicity	1B
Specific target organ toxicity, single exposure	3 narcotic effects
Hazardous to the aquatic environment—long-term (chronic) hazard	2

**Signal Word:** Danger**Hazard statement(s):** Causes skin irritation. May cause cancer. May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.**Precaution(s):**

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing mist, vapors, or spray. Wash hands and face thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, and eye and face protection. Avoid release to the environment.

Response: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
IF exposed or concerned: Get medical advice/attention.
Collect spillage.

Storage: Store in a well-ventilated place. Store locked up.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards: None known.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS Registry No.	Weight %
Tetrachloroethylene	127-18-4	100

SECTION 4 FIRST-AID MEASURES

Eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation develops and persists: Get medical advice/attention.

Inhalation IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

Skin contact: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Ingestion: IF SWALLOWED: Immediately call a poison center/doctor. Do NOT induce vomiting. Rinse mouth.

Most important symptoms/effects: Symptoms of overexposure may be headache, dizziness, tiredness, nausea, and vomiting. May cause redness and pain.

Indication of immediate medical attention and special treatment needed, if necessary:

Notes to physician: Treat symptomatically.

Specific treatments: Show this safety data sheet to the doctor in attendance.

SECTION 5 FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂). Do not use water jet as this will spread the fire.

Specific hazards arising from the chemical:

Containers may explode when heated. Decomposition products may include carbon oxides, halogenated compounds, carbonyl halides. When exposed to extreme heat, vapors may decompose to hydrogen chloride and possible traces of phosgene.

Special protective equipment for fire-fighters: Use appropriate equipment for surrounding fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precaution, protective equipment and emergency procedures: Evacuate the area, ventilate, and avoid breathing vapors. Wear appropriate personal protective equipment (see section 8). If spill occurs indoors, turn off heating and/or air conditioning systems to prevent vapors from contaminating entire building.

Methods and materials for containment and cleaning-up:

Stop leak if you can do so without risk. Dike area to contain spill. Clean up area by mopping with absorbent material and transfer to closed containers for disposal.

Environmental precautions:

Avoid contamination of ground and surface waters. Do not flush to sewer. All spills or leaks of this material must be handled and disposed of in accordance with local, state, and federal regulations.

Notify National Response Center at (800) 424-8802, and any state and local agencies as applicable, of uncontained releases to the environment in excess of the EPA reportable quantity (RQ). See Section 15 for regulatory information.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Do not empty into drains. Observe good industrial hygiene practices. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities: KEEP OUT OF REACH OF CHILDREN. Store locked up. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Chemical name</u>	<u>CAS</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>NIOSH REL</u>
Tetrachloroethylene	127-18-4	TWA: 100 ppm Ceiling: 200 ppm	TWA: 25 ppm STEL: 100 ppm	—

Appropriate engineering controls: Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Individual protection measures (PPE):

Consult supervisor for special handling instructions. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Wash hands before breaks and immediately after handling the product. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practice.

Eye protection: Wear safety glasses with side shields. If splash potential exists, wear full face shield or chemical goggles.

Hand protection: Wear suitable protective gloves.

Skin and body protection: If major exposure is possible, wear suitable protective clothing and footwear.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be implemented whenever workplace conditions warrant use of a respirator.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear liquid	U/L flammability or explosive limits	Not determined
Odor	Ethereal, irritating	Vapor pressure	14.2 mm Hg @ 20°C
Odor threshold	50-55 ppm	Vapor density	5.83 (Air = 1)
pH	Not applicable	Relative density (specific gravity)	1.625
Melting point/freezing point	-8.14°F (-22.3°C)	Solubility(ies)	Negligible
Initial boiling point and boiling range	248-252°F (120-122°C)	Partition coefficient: n-octanol/water	Not determined
Flash point	Not applicable	Auto-ignition temperature	Not determined
Evaporation rate	Very fast 0.09 (ether = 1)	Decomposition temperature	Not determined
Flammability (solid, gas)	Not relevant	Viscosity	Not determined

SECTION 10 STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Stable under normal temperature conditions and recommended use.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to Avoid: Heat, flames and sparks. Ignition sources. Contact with incompatible materials.

Incompatible materials: Oxidizing agents, strong alkalis, strong acids, finely divided aluminum or powdered metal.

Hazardous decomposition products: Carbon dioxide, carbon monoxide, hydrogen chloride, phosgene, chlorine.

SECTION 11 TOXICOLOGICAL INFORMATION**Information on likely routes of exposure:****Ingestion:** May cause discomfort if swallowed.**Inhalation:** May cause drowsiness, dizziness, headache, or nausea. Vapors have a narcotic effect.**Eye contact:** Causes serious eye irritation.**Skin contact:** Causes skin irritation.**Symptoms related to the physical, chemical and toxicological characteristics:** Irritation. Drowsiness and dizziness. May cause damage to organs (Central nervous system) through prolonged or repeated exposure.**Numerical measure of toxicity, component information:**

Chemical name	CAS	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Tetrachloroethylene	127-18-4	2629 mg/kg (rat)	>10,000 ml/kg (rabbit)	35 mg/L, (rat) 4 hours

Skin corrosion/irritation: Causes skin irritation.**Serious eye damage/irritation:** May cause eye irritation.**Respiratory sensitization:** Not assigned.**Skin sensitization:** Not assigned.**Germ cell mutagenicity:** Not assigned.**Carcinogenicity:** Tetrachloroethylene (127-18-4)

IARC: Probably carcinogenic to humans Group 2A.

ACGIH: A3: Confirmed animal carcinogen with unknown relevance to humans.

NTP: Reasonably anticipated to be a human carcinogen.

OSHA: Not listed.

Reproductive Toxicity: No toxicity to reproduction.**Specific target organ toxicity, single exposure:** May cause drowsiness or dizziness. Narcotic effects.**Specific target organ toxicity, repeated exposure:** No data available.**Chronic effects:** Prolonged inhalation may be harmful.**Further information:** Solvents may degrease the skin.**SECTION 12 ECOLOGICAL INFORMATION****Ecotoxicity:**

Acute LC50 (96 hours) for Fathead Minnow: 15.7 ppm

Acute LC50 (96 hours) for Bluegill: 12.9 ppm

Acute LC50 (96 hours) for Mysid: 10.2 ppm

Acute LC50 (96 hours) for Sheepshead Minnow: 29.4 – 52.2 ppm

Persistence and degradability: Not expected to be readily biodegradable.**Bioaccumulation potential:** This product shows low bioaccumulation potential.**Mobility in soil:** No information available.**Other adverse effects:** Water polluting material. May be harmful to the environment if released in large quantities.**SECTION 13 DISPOSAL CONSIDERATIONS****Unused product:** This product, as sold, if discarded or disposed, is a hazardous waste according to federal regulations. Dispose of container and contents in accordance with local, regional, national and international regulations.**Contaminated containers or packaging:** Dispose of packaging or containers in accordance with local, regional, national and international regulations.**SECTION 14 TRANSPORT INFORMATION**

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT (ground), IMDG	Tetrachloroethylene, MARINE POLLUTANT	UN1897	III	6.1
IATA	Not suitable for air shipment as packaged from the factory.			

SECTION 15 REGULATORY INFORMATION**TSCA:** All components of this product are on the U.S. Toxic Substances Control Act (TSCA) Chemical Substances Inventory or are exempt.**CERCLA:** Tetrachloroethylene (127-18-4); RQ 100 lbs.**SARA TITLE III:****Section 311/312 Hazard Category:**

Acute: Yes

Chronic: Yes

Fire: No

Pressure: No

Reactive Hazard: No

Section 313 Reportable Ingredients: Tetrachloroethylene (127-18-4)

CALIFORNIA (Proposition 65): WARNING: This product contains the following chemicals known to the State of California to cause cancer: Tetrachloroethylene (127-18-4).

SECTION 16 OTHER INFORMATION

Date Prepared: May 22, 2015 **Replaces:** Nov. 18, 2011

NOTICE: This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, express or implied, as to accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all federal, state, provincial, and local laws and regulations.