

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION: PROCAL H₂O STANDARD 100% T STANDARD SOLUTION

Catalog Numbers: HF Scientific – 70908 ProCal H₂O Standard
 14246 100% T Standard 4 oz.
 19323 100% T Standard 500 mL

PRODUCT USE: Analytical / Laboratory Reagent

NFPA RATINGS: HEALTH: 3 FLAMMABILITY: 2 REACTIVITY: 0

2. HAZARDS IDENTIFICATION

TARGET ORGANS: Skin, eyes and respiratory tract
 ACUTE TOXICITY: Burning or irritation of the exposed area
 CHRONIC TOXICITY: Extreme or prolonged exposure will induce tearing of eye tissue, coughing, difficulty in breathing, nausea, headache, or weakness.
 MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None found

3. COMPOSITION / INFORMATION ON INGREDIENTS

	<u>Percent</u>
COMPONENT: Water	>99%
CAS NUMBER: 7732-18-5	

COMPONENT: Formaldehyde	<1%
CAS NUMBER: 50-00-0	

4. FIRST AID MEASURES

EYE CONTACT: Flush eyes with plenty of water for 15 minutes. Call a physician.
 SKIN CONTACT: Wash with plenty of water for 15 minutes. Call a physician if irritation occurs.
 INHALATION: Remove to fresh air. If breathing has stopped, give artificial respiration. Call a physician immediately.
 INGESTION: Give large quantities of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not determined AUTOIGNITION POINT: Not determined
 FLAMMABILITY LIMITS: UPPER: 73 ppm LOWER: 7 ppm
 EXTINGUISHING MEDIA: Water, Carbon dioxide, Dry chemical powder or foam

6. ACCIDENTAL RELEASE MEASURES

Wear self-contained breathing apparatus, rubber boots and gloves. Absorb on sand, vermiculite, sawdust and put in a container for future disposal. Wash and ventilate spill site after pickup is complete.

7. HANDLING AND STORAGE

Store material at room temperature. Keep storage container tightly closed. Avoid contact with skin and eyes. Do not inhale. Wash thoroughly after handling.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION: OSHA/MHSA approved respirator if needed.
 VENTILATION: Mechanical ventilation.
 PROTECTIVE GLOVES: Rubber.
 EYE PROTECTION: Safety goggles.
 OTHER PROTECTIVE EQUIPMENT: Safety shower and eye bath.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling point:	Approximately 212°F
Solubility in water:	Miscible
Vapor pressure (mm Hg):	Not determined
Appearance and odor:	Clear and colorless; no odor
pH:	3 – 5 @ 25°C
Vapor density (AIR=1):	Not determined
Specific gravity (H ₂ O=1):	Approximately 1
Melting point:	Approximately 32°F
Evaporation rate:	Not determined
Percent volatile by volume:	Not determined

10. STABILITY AND REACTIVITY

Stability: Stable
 Conditions to avoid: Organic matter, chlorates, actives metals
 Incompatibilities (Materials to avoid): Organic matter, chlorates, active metals
 Hazardous Decomposition products: Toxic Sox fumes
 Hazardous polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

Route of Exposure: Inhalation, Contact, Ingestion
 Teratogen Status: Possible for humans
 Mutagen Status: Mammalian somatic cells
 Reproductive Toxicity: Possible for both female and male
 Carcinogen Status: A2 Classified

12. ECOLOGICAL INFORMATION

Formaldehyde has a relatively low toxicity for fish, 96 h LC50 values being higher than 10 mg/L in all cases, e.g. Rainbow Trout 96 h LC50: 123 mg/L

Algae and some invertebrates seem to be more susceptible to formaldehyde, however responses differ widely:
 Bacteria (E.Coli): 1mg/L
 Algae (Scenedesmus): 0.3-0.5 mg/L

Inhibits anaerobic sludge digestion at 100 mg/L
 aerobic degradation at 135-175 mg/L

13. DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with Federal, State and Local Regulations.

14. TRANSPORT INFORMATION

Not regulated

15. REGULATORY INFORMATION

US / CANADA INFORMATION:

SARA/Title III: No
 TSCA Inventory: Yes
 Cal. Proposition 65: No
 WHMIS: No
 DSL: No
 NDSL: No

16. OTHER INFORMATION

THE ABOVE INFORMATION IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. ALL PRODUCTS ARE OFFERED IN ACCORDANCE WITH THE MANUFACTURER'S CURRENT PRODUCTION SPECIFICATIONS AND ARE INTENDED SOLELY FOR USE IN ANALYTICAL TESTING. THE MANUFACTURER SHALL IN NO EVENT BE LIABLE FOR ANY INJURY, LOSS OR DAMAGE RESULTING FROM THE HANDLING, USE OR MISUSE OF THESE PRODUCTS.