

MATERIAL SAFETY DATA SHEET

Product Name: ClorAm-X™ (liquid & powder)

Manufacturer: AquaScience Research Group, Inc.
1100 Gentry Street
North Kansas City, MO 64116

Distributor(s) *List available upon request*

Emergency Telephone Numbers: 816/842-5936
816/891-6671

Effective Date: 05/08/96 (revised 07/11/01)

SECTION I: PRODUCT IDENTIFICATION:

Synonyms: (1) formaldehyde sodium bisulfite;
(2) sodium formaldehydebisulfite;
(3) methylolsulfonic acid sodium salt

Chemical Family: reducing agent

SECTION II: PRODUCT COMPOSITION:

Formula CAS No.: water (present in liquid product only): 7732-18-5
sodium hydroxymethanesulfonate: 870-72-4

Molecular Weight: dry (pure): 134.09; solution: not applicable

Hazardous Ingredients: none

Other Ingredients: none

Chemical Formula: dry (pure): HOCH₂SO₃Na

MATERIAL SAFETY DATA SHEET

SECTION III: PHYSICAL PROPERTIES:

Boiling Range:	greater than 100°C (>212°F)
Specific Gravity:	1.1476 (for liquid product only)
Vapor Pressure at 20°C (in mm of Hg):	not determined
Vapor Density (air = 1):	not determined
Solubility in Water:	100% miscible
Evaporation Rate (n-butanol = 1):	not determined
% Volatiles:	approximately 78% (by weight for liquid product only)
Appearance and Odor:	liquid product: odorless, colorless liquid dry (pure): white powder with a mild (slight) odor

SECTION IV: FIRE AND EXPLOSION DATA:

Lower Flammability Limits (% in air):	not flammable
Flash Point (and methods):	not flammable
Flammability Classification:	none

MATERIAL SAFETY DATA SHEET

**Recommended
Extinguishing
Media:**

none required

**Special Fire Fighting
Procedures:**

no special procedures required

**Unusual Fire/
Explosion Hazards:**

none

SECTION V: HEALTH INFORMATION:

**Threshold Limit
Value:**

liquid product: non-toxic (by acute oral mammalian toxicity tests) at 5,000 mg/Kg

**Effects of
Overexposure:**

no reported inhalation danger; prolonged exposure to the skin may result in a rash

**Emergency First Aid
Procedures:**

Eye contact: Flush with water for at least 15 minutes

Skin contact: Wash exposed areas with soap and water. If irritation occurs, get medical attention.

Inhalation: Not an inhalation hazard.

Ingestion: Treat symptomatically. For sour or salty taste give sweetened drink.

CALIFORNIA WARNING:

This product not known to contain any detectable amounts of any chemical or chemicals known to the State of California to cause cancer/birth defects or other reproductive harm.

MATERIAL SAFETY DATA SHEET

SECTION VI: REACTIVITY DATA:

Stability: stable

Conditions to Avoid: none

Incompatibility : inactivated by strong oxidizing substances (e.g. chlorine bleaches, permanganates, free iodine) and strong acids and bases (e.g. hydrochloric acid, sodium hydroxide)

**Hazardous
Decomposition
Products:**

fully evaporated liquid product and dry (pure) powder may produce sulfur dioxide under conditions of exposure to fire

**Hazardous
Polymerization:**

will not occur

SECTION VII: FIRE AND SPILL/LEAK PROCEDURES:

In Case of Fire:

no special extinguishing media nor equipment are needed

**In Case of Spill or
Accidental Release
or Leak:**

spills and accidental release may be rinsed to sanitary sewers

**Waste Disposal
Procedures:**

dispose of per local, state and federal regulations for non-hazardous household chemicals

MATERIAL SAFETY DATA SHEET

SECTION VIII: SPECIAL PROTECTION INFORMATION:

Respiratory Protection: non-specific (general) dust protection when handling the powder.

none required

Local Exhaust:

none required

Protective Gloves:

none required

Eye Protection:

Other Protective Equipment:

none required

SECTION IX: ADDITIONAL PRECAUTIONS:

(1) persons with pre-existing skin disorders or eye irritations should avoid contact with eyes and skin

(2) keep container upright and tightly closed when not in use

(3) do not add any other materials to the container (including unused material originally removed from the container)

SECTION X: TRANSPORTATION:

D.O.T. Hazard Classification:

none

D.O.T. Label/Placards:

none required

UN or NA Number:

none

MATERIAL SAFETY DATA SHEET

Reportable Quantity: none

Shipping Description: for powder: "Cleaning compound", #59370, supplement NMF100C, Class 55
for solutions (liquid): "Saline solution", #59370, supplement NMF100C, Class 55

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, neither AquaScience Research Group, Inc., nor its distributors make any representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, AquaScience Research Group, Inc., and its distributors will not be responsible for damages of any kind resulting from the use of or reliance upon such information.

NO REPRESENTATIONS, OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR TO THE PRODUCT TO WHICH THE INFORMATION REFERS.