



Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name	Hybridization Solution, 0% Formamide, OmniPur ®	Product Code	5600
Manufacturer	EMD Chemicals Inc. P.O. Box 70 480 Democrat Road Gibbstown, NJ 08027 Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.	Effective Date	9/17/2004
		Print Date	12/7/2004

For More Information Call

856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

In Case of Emergency Call

800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

Synonym	None.
Material Uses	Analytical reagent.

Chemical Family Solution.

Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
Water	7732-18-5	50-60
Dextran Sulfate Sodium	9011-18-1	20-25
Sodium Chloride	7647-14-5	10-20
Sodium Citrate, Dihydrate	6132-04-3	5-10

Section 3. Hazards Identification

Physical State and Appearance Liquid.

Emergency Overview CAUTION!
MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS:
SKIN, EYES, STOMACH.

Routes of Entry Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

Eyes May be hazardous in case of eye contact (irritant).

Skin May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation May be hazardous in case of inhalation (lung irritant).

Ingestion Ingestion may cause gastrointestinal irritation and diarrhea.

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Potential Chronic Health Effects

Carcinogenic Effects This material is not known to cause cancer in animals or humans.

Additional information See Toxicological Information (section 11)

**Medical Conditions
Aggravated by
Overexposure:**

Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flammability of the Product	Non-flammable.
Auto-ignition Temperature	Not applicable.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of static discharge: No. Risks of explosion of the product in presence of mechanical impact: No.
Fire Fighting Media and Instructions	Not applicable.
Protective Clothing (Fire)	Not applicable.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill and Leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill and Leak	Absorb with an inert material and put the spilled material in an appropriate waste disposal.
Spill Kit Information	No specific spill kit required for this product.

Section 7. Handling and Storage

Handling	Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mists. Keep container closed. Do not ingest.
Storage	Store frozen, at -20C.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.
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Personal Protection

Eyes Splash goggles.

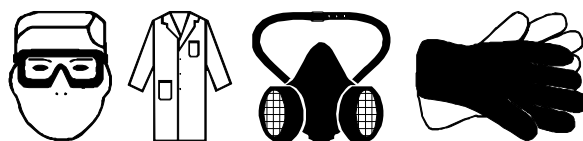
Body Lab coat.

Respiratory Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hands Gloves.

Feet Not applicable.

Protective Clothing (Pictograms)



Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
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Product Name	Exposure Limits
Water	Not available.
Dextran Sulfate Sodium	Not available.
Sodium Chloride	Not available.
Sodium Citrate, Dihydrate	Not available.

Section 9. Physical and Chemical Properties

Odor Not available.

Color Not available.

Physical State and Appearance Liquid.

Molecular Weight Not applicable.

Molecular Formula Not applicable.

pH Not available.

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Boiling/Condensation Point The lowest known value is 99.9°C (211.8°F) (Water).

Melting/Freezing Point May start to solidify at -0.1°C (31.8°F) based on data for: Water.

Specific Gravity Not available.

Vapor Pressure Not available.

Vapor Density Not available.

Odor Threshold Not available.

Evaporation Rate 0.36 (Water) compared to (n-BUTYL ACETATE=1)

LogK_{ow} Not available.

Solubility Soluble in water.

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Conditions of Instability Not available.

Incompatibility with Various Substances Slightly reactive to reactive with oxidizing agents.

Rem/Incompatibility Not available.

Hazardous Decomposition Products Not available.

Hazardous Polymerization Will not occur.

Section 11. Toxicological Information

RTECS Number: Water ZC0110000
Dextran Sulfate Sodium Salt HH9290000
Sodium Chloride VZ4725000
Sodium Citrate Not available.

Toxicity Acute oral toxicity (LD₅₀): 3000 mg/kg [Rat]. (Sodium Chloride).
Acute toxicity of the vapor (LC₅₀): >42000 mg/m³ 1 hour(s) [Rat]. (Sodium Chloride).

Chronic Effects on Humans Contains material which may cause damage to the following organs: skin, eyes, stomach.

Acute Effects on Humans May be hazardous in case of eye contact (irritant). May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. May be hazardous in case of inhalation (lung irritant).

Special Remarks on Other Toxic Effects on Humans Dextrin is a potent antigen. Overexposure can cause temporary increase in cardiac output. (Dextran Sulfate Sodium)

Synergetic Products (Toxicologically) Not available.

Irritancy Draize Test: Not available.

Sensitization Not available.

Carcinogenic Effects This material is not known to cause cancer in animals or humans.

Toxicity to Reproductive System Not available.

Teratogenic Effects Not available.

Mutagenic Effects Not available.

Section 12. Ecological Information

Ecotoxicity Not available.

BOD5 and COD Not available.

Toxicity of the Products of Biodegradation The product itself and its products of degradation are not toxic.

Section 13. Disposal Considerations

EPA Waste Number Not available.

Treatment Material does not have an EPA Waste Number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations..

Section 14. Transport Information

DOT Classification Proper Shipping Name: CHEMICALS, N.O.S.
RQ: Not applicable.

TDG Classification Not available.

IMO/IMDG Classification Not available.

ICAO/IATA Classification Proper Shipping Name: CHEMICALS, N.O.S.
RQ: Not applicable.

Section 15. Regulatory Information

U.S. Federal Regulations TSCA 8(b) inventory: Water; Dextran Sulfate Sodium; Sodium Chloride; Sodium Citrate, Dihydrate
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Sodium Chloride
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium Chloride: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard
SARA 313 toxic chemical notification and release reporting: No products were found.
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 accidental release prevention: No products were found.
Clean air act (CAA) 112 regulated flammable substances: No products were found.
Clean air act (CAA) 112 regulated toxic substances: No products were found.

WHMIS (Canada) Not controlled under WHMIS (Canada).

CEPA DSL: Water; Dextran Sulfate Sodium; Sodium Chloride

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

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International Regulations

EINECS	Water	231-791-2	
	Dextran Sulfate Sodium		Not available.
	Sodium Chloride	231-598-3	
	Sodium Citrate, Dihydrate		Not available.

DSCL (EEC) R36/38- Irritating to eyes and skin.

International Lists Australia (NICNAS): Water; Dextran Sulfate Sodium; Sodium Chloride; Sodium Citrate, Dihydrate

Japan (MITI): Water; Dextran Sulfate Sodium; Sodium Chloride

Korea (TCCL): Water; Dextran Sulfate Sodium; Sodium Chloride

Philippines (RA6969): Water; Sodium Chloride; Sodium Citrate, Dihydrate

China: No products were found.

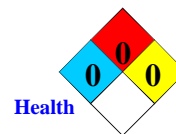
State Regulations

New Jersey: Dextran Sulfate Sodium

California prop. 65: No products were found.

Section 16. Other Information

**National Fire
Protection
Association
(U.S.A.)**



Fire Hazard

Reactivity

Specific Hazard

**Changed Since Last
Revision**



Notice to Reader

The statements contained herein are based upon technical data that EMD Chemicals Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. EMD CHEMICALS INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.