



Material Safety Data Sheet  
MSDS #: 702741

**Identification of Product:**

Hybridization Solution

**Contact Information:**

Manufacturer: Affymetrix, Inc. 3380 Central Expressway, Santa Clara, CA 95051 Tel: +1 408 731 5000  
Emergency contact: CHEMTREC: 800 424 9300 in USA

**Composition / Information:**

The follow list shows component(s) of this product classified as hazardous based on physical properties and/or health effects.

<u>Ingredient Name</u>	<u>CAS #</u>	<u>EC No.</u>	<u>Percent(%)</u>	<u>R-Statement</u>	<u>S-Statement</u>
Denhardt's solution	None		<6	N/A	N/A
Ethylenediaminetetraacetic Acid Disodium Dihydrate	6381-92-6	200-449-4	<2	R:36/37/38	S:36/37/39
Dimethyl sulfoxide	67-68-5	200-664-3	<6	N/A	N/A
Tetramethylammonium chloride	75-57-0	200-880-8	<20	R: 25 51	S:36/37/38

**Hazards Identification:**

T – Toxic : Tetramethylammonium chloride



Physical State: Liquid

Chronic Exposure: None known. Not thoroughly investigated

Aggravating Conditions: None known

Carcinogenicity: Not listed by NTP, IARC or regulated by OSHA as carcinogens.

**First Aid Measures:**

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult physician.

Eye Contact: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Consult physician.

Skin Contact: Flush or wash contaminated area with water for 15 minutes. Seek medical consultation if irritation develops and persists.

Ingestion: Danger! Highly Toxic. Hygroscopic The toxicological properties of this mixture have not been fully investigated. Rinse out mouth immediately. Give 2-4

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Note to physician:      cupfulls of milk or water. Do not induce vomiting. Consult physician.  
Treat symptomatically

**Fire Fighting Measures:**

Extinguishing media:      Use alcohol resistant foam, carbon dioxide or dry chemical when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the surface of the fire. Do not direct a stream of water into the hot burning liquid. Use water spray/fog for cooling.

Special Fire procedure:      Wear appropriate fire protection gear for surrounding fire.

Hazardous combustion products:      Carbon dioxide, carbon monoxide, dense smoke

**Accidental release measures:**

If released or spilled:      Absorb on inert material, collect for appropriate disposal. Do not flush to sewer.

Absorbent material:      Do not use combustible materials, such as sawdust.

**Handling and Storage:**

Handling:      Irritating material. Use with personal protective equipment and in a well ventilated area. Keep container closed when not in use.

Storage:      Store in tightly closed container. Protect against physical damage. Isolate from incompatible substances.

**Exposure Controls / Personal Protection:**

Protective equipment:      Use general laboratory protective equipment, lab safe gloves, general eye protection safety glasses or goggles

Hygiene:      General lab practices. Wash hands after use. Keep away from food and beverages.

Ventilation:      Well ventilated area and/or local exhaust

**Physical and Chemical Properties:**

Appearance and Odor:      Clear or transparent. No odor reported

Boiling Point (C):      Not tested on mixture

Flash Point:      Not tested on mixture

Specific Gravity:      Not tested on mixture

Vapor Density:      Not tested on mixture

pH:      Not tested on mixture

Solubility in Water:      Miscible

**Stability and Reactivity:**

Stability:      Stable under normal conditions

Incompatibility:      Strong oxidizing agents and strong acids. Temperatures above flashpoint in combination with sparks, open flames or other sources of ignition.

Hazardous Decomp.:      Carbon monoxide, Carbon dioxide, nitric oxide (NO<sub>x</sub>), and ammonia (NH<sub>3</sub>) fumes, chlorine

Hazardous Polymerization:      Not expected to occur

**Toxicological Information:**

Exposure limits:      Toxicological information is reported for the individual components. The toxicity



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of the mixture has not been thoroughly investigated.

Ingredient	OSHA PEL	ACGIH - TLV	Dermal/Skin	Inhalation	Ingestion
Denhardt's solution	Not listed	Not listed	Not available	Not available	Not available
Ethylenediaminetetraacetic Acid Disodium Dihydrate	Not listed	Not listed	Not available	Not available	Not available
Dimethyl sulfoxide	Not listed	Not listed	Not available	Not available	LD50 Oral – rat 2000 mg/kg
Tetramethylammonium chloride	Not listed	Not listed	Not available	Not available	LD50 Oral – Mouse 40 mg/kg

**Ecological Information:**

Ecotoxicological Information: No ecological information available for mixture. Tetramethylammonium chloride in low concentrations is toxic to the water flea.

**Disposal Considerations:**

Observe all Federal, State and local regulations regarding disposal

**Transport Information:**

IATA-DGR

AIR TRANSPORT: IATA CARGO

Shipping name: Toxic liquid, organic, n.o.s. (Tetramethylammonium chloride)

Hazard Class: 6.1

Packing Group: III

**Regulatory:**

TSCA: This product is solely for use for research and development purposes and may not be used, processed or distributed for a commercial purpose. It may only be handled by technically qualified individuals.

Section 313: This mixture does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313

California Prop 65: None of the components are listed

Canada:

DSL/NDSL: 75-57-0 is listed  
67-68-5 is listed  
6381-92-6 is listed

Component: Tetramethylammonium chloride

WHMIS Classification: D1B, D2B

European Union:

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Product Risk Phrases: R36/37/38 – Irritating to eyes, respiratory system and skin  
TMACL: R25 – Toxic if swallowed  
TMACL: R51 – Toxic to aquatic organisms

Product Safety Phrases:  
S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S:36/37/39 - Wear suitable protective clothing, gloves and eye/face protection

**Other Information:**

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For each kit, a MSDS sheet will be sent only on the first shipment, unless a substantial revision occurs. Additional copies are available from the Affymetrix, Inc. website at [www.affymetrix.com](http://www.affymetrix.com). While the information provided in the MSDS is believed to be correct, this information is provided by Affymetrix without any warranty, express or implied, regarding its corrective uses. To the best of our knowledge the information provided is correct. However, the information should only be used as a guide and the final determination is the sole responsibility of the user as all materials may contain unknown hazards and should be used with caution. Affymetrix, Inc. shall not be held liable for any damages or losses resulting from use of the product(s).