

Safety Data Sheet

1. IDENTIFICATION

Product Identifier: Sperm Diluting Fluid

Product Code(s): S1042

Synonyms: Mixture.

Recommended Use: For manufacturing, industrial, and laboratory use only. Use a laboratory reagent.

Uses Advised Against: Not for food, drug, or household use.

Supplier: Rocky Mountain Reagents, Inc.
4621 Technology Drive, Golden, CO 80403
Phone: (303) 762-0800 Fax: (303) 762-1240

Emergency Phone Number: For health emergency, call poison control: (800) 222-1222.

2. HAZARDS IDENTIFICATION

Hazard Classifications:

Sensitization – Respiratory:	Category 1
Sensitization – Skin:	Category 1
Carcinogenicity:	Category 1

Signal Word: DANGER

Hazard Statements:

- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- May cause an allergic skin reaction.
- May cause cancer.



Precautionary Statements:

Prevention:

- Avoid breathing fumes, mists, vapors, or spray.
- In case of inadequate ventilation, wear respiratory protection.
- Contaminated work clothing must not be allowed out of the workplace.
- Wear protective gloves, protective clothing, eye protection, and face protection.
- Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Response: If exposed or concerned: Get medical attention.
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or doctor.
If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention.
Wash contaminated clothing before reuse.

Storage: Store locked up.

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

Hazards Not Otherwise Classified: May cause mutagenic and reproductive effects (see Section 11).
May be harmful to aquatic life. Avoid release to the environment.

Toxicity Statement: Not applicable.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	Common Name / Synonyms	CAS#	Chemical Formula	% by Weight
Water	Water	7732-18-5	H ₂ O	94.6
Sodium Bicarbonate	Sodium Hydrogen Carbonate	144-55-8	NaHCO ₃	4.86
Formaldehyde	Formalin	50-00-0	HCHO	0.385
Methanol	Methyl Alcohol	67-56-1	CH ₃ OH	0.130
Eosin Y, Sodium Salt	Acid Red 87	17372-87-1	Na ₂ C ₂₀ H ₆ O ₅ Br ₄	< 0.0100

Trade Secret Statement: Not applicable.

4. FIRST AID MEASURES

First Aid Procedures:

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

Skin Contact: Wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur.

Eye Contact: Check for and remove contact lenses, if present and easy to do. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if symptoms occur.

General Advice: Poison information centers in each state can provide additional assistance for scheduled poisons. Ensure that those providing first aid and medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Symptoms and Effects: Inhalation may cause irritation, allergic reaction, coughing, and sneezing. Ingestion may cause nausea, vomiting, diarrhea, decreased motor function, urine discoloration, and blindness. Skin contact may cause irritation, allergic reaction, and skin discoloration. Eye contact may cause severe eye irritation.

**Immediate Medical Care/
Special Treatment:**

Get medical attention immediately if feeling unwell or concerned. Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media: Water spray, dry powder, alcohol resistant foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream, as it may scatter and spread fire.

Hazardous Combustion Products: Sodium oxides, carbon oxides, hydrobromic acid.

Specific Hazards: Excessive thermal conditions may cause decomposition and yield corrosive and/or toxic fumes.

**Special Protective Equipment/
Precautions for Firefighters:** As in any fire, wear MSHA/NIOSH-approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing.

Emergency Procedures: In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1).

Methods for Containment: Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements, or confined areas. Dike the spilled material, where this is possible. Product should not be released to the environment. Contain and recover liquid when possible.

Methods for Cleanup: Absorb spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, or fleece) and place in a non-combustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Residues from spills can be diluted with water. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Handling: Wear personal protective equipment (see Section 8). Use only in well-ventilated areas. Provide sufficient air exchange and/or exhaust in work areas. Avoid contact with skin, eyes, and clothing. Do not ingest. When using, do not eat, drink, or smoke. Keep away from incompatible materials (see Section 10). Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty, as they retain product residues. Observe all warnings and precautions listed for this product.

Storage: Store in a cool, dry, ventilated area. Store in a segregated and approved area away from heat and incompatible materials (see Section 10). Store in original container. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits: Water: No information found.

Sodium Bicarbonate:	No information found.
Formaldehyde:	ACGIH (TWA): 0.3 ppm OSHA (TWA): 0.75 ppm OSHA (STEL): 2 ppm NIOSH (TWA): 0.016 ppm NIOSH (CEIL): 0.1 ppm
Methanol:	ACGIH (TWA): 200 ppm ACGIH (STEL): 250 ppm OSHA (TWA): 200 ppm NIOSH (TWA): 200 ppm NIOSH (CEIL): 250 ppm
Eosin Y, Sodium Salt:	No information found.

Engineering Controls: Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Measures:

Eye/Face Protection: Wear safety glasses with side shields or safety goggles. Maintain approved eye wash station and accessible rinse facilities in work area.

Skin Protection: Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.

Respiratory Protection: An air-purifying, NIOSH-approved respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure, air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

Specific Requirements for Personal Protective Equipment: Ensure that glove material is compatible with this product. This information is available from glove manufacturers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Unless otherwise indicated, all properties are given at 25 °C and standard pressure.

Appearance:	Pink, transparent liquid.
Odor:	Slight, formaldehyde.
Odor Threshold:	No information found.
Formula Weight:	Mixture.
pH:	No information found.
Melting/Freezing Point:	No information found.
Boiling Point/Range:	No information found.
Decomposition Temperature:	No information found.
Flash Point:	Not applicable.
Auto-ignition Temperature:	Not applicable.

Flammability:	Not flammable.
Flammability/Explosive Limits:	Not applicable.
Solubility:	Miscible with water.
Vapor Pressure:	No information found.
Vapor Density:	No information found.
Specific Gravity:	1.029 (Water = 1)
Evaporation Rate:	No information found.
Viscosity:	No information found.
Partition Coefficient (n-octanol/water):	No information found.

10. STABILITY AND REACTIVITY

Reactivity Data:	No information found.
Chemical Stability:	Stable under normal conditions. Sensitive to light.
Conditions to Avoid:	Excessive heat, exposure to light, incompatible materials.
Incompatible Materials:	Strong acids, strong bases, oxidizers, alkali metals, alkaline earth metals, organic materials, polymers.
Hazardous Decomposition Products:	Sodium oxides, carbon oxides, hydrobromic acid.
Possibility of Hazardous Reactions:	May react vigorously or violently with the incompatible materials listed above. Excessive thermal conditions may yield hazardous decomposition products listed above. Excessive exposure to light may cause color to fade.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure:	Inhalation, ingestion, skin contact, eye contact.						
Acute Effects:	May be harmful if swallowed, inhaled, or exposed to the skin or eyes. May cause irritation and allergic effects if inhaled or exposed to the skin. May cause central nervous system and gastrointestinal effects.						
Chronic Effects:	Prolonged or repeated exposure may cause respiratory and skin sensitization, adverse reproductive effects, mutagenic effects, birth defects, developmental effects, and cancer.						
Toxicological Data:	<table> <tr> <td>Water:</td> <td>Not applicable.</td> </tr> <tr> <td>Sodium Bicarbonate:</td> <td>LD₅₀ Oral, Rat: 4220 mg/kg Causes mild eye irritation based on animal data.</td> </tr> <tr> <td>Formaldehyde:</td> <td>LD₅₀ Oral, Rat: 100 mg/kg LD₅₀ Dermal, Rabbit: 270 mg/kg LC₅₀ Inhalation, Rat: 0.578 mg/L 4 h Corrosive to skin and eyes based on animal data. May cause mutagenic effects based on animal data.</td> </tr> </table>	Water:	Not applicable.	Sodium Bicarbonate:	LD ₅₀ Oral, Rat: 4220 mg/kg Causes mild eye irritation based on animal data.	Formaldehyde:	LD ₅₀ Oral, Rat: 100 mg/kg LD ₅₀ Dermal, Rabbit: 270 mg/kg LC ₅₀ Inhalation, Rat: 0.578 mg/L 4 h Corrosive to skin and eyes based on animal data. May cause mutagenic effects based on animal data.
Water:	Not applicable.						
Sodium Bicarbonate:	LD ₅₀ Oral, Rat: 4220 mg/kg Causes mild eye irritation based on animal data.						
Formaldehyde:	LD ₅₀ Oral, Rat: 100 mg/kg LD ₅₀ Dermal, Rabbit: 270 mg/kg LC ₅₀ Inhalation, Rat: 0.578 mg/L 4 h Corrosive to skin and eyes based on animal data. May cause mutagenic effects based on animal data.						

May cause adverse reproductive effects based on animal data.
May cause skin sensitization based on human and animal data.
May cause respiratory sensitization based on animal data.

Methanol: LD₅₀ Oral, Rat: 5628 mg/kg
LD₅₀ Dermal, Rabbit: 15,800 mg/kg
LC₅₀ Inhalation, Rat: 83.2 mg/L 4 h
LDL Oral, Human: 143 mg/kg
May cause adverse reproductive effects based on human and animal data.

Eosin Y, Sodium Salt: Irritating to eyes based on animal data.

Symptoms of Exposure: Irritation, burns, headache, coughing, sneezing, nervous system effects, nausea, vomiting, diarrhea, decrease in motor function, skin discoloration, urine discoloration, blindness.

Carcinogenic Effects:

OSHA HCS:	Formaldehyde:	Carcinogen
IARC:	Formaldehyde:	1 – Carcinogenic to humans
	Eosin Y, Sodium Salt:	3 – Not classifiable as to its carcinogenicity to humans
ACGIH:	Formaldehyde:	A2 – Suspected human carcinogen
NTP:	Formaldehyde:	Known human carcinogen

12. ECOLOGICAL INFORMATION

Ecotoxicological Data:

Water:
Not applicable.

Sodium Bicarbonate:
EC₅₀, Water Flea (Daphnia magna): 2350 mg/L 48 h

Formaldehyde:
EC₅₀, Water Flea (Daphnia magna): 2 mg/L 48 h
LC₅₀, Fathead Minnow (Pimephales promelas): 23 mg/L 96 h
LC₅₀, Rainbow Trout (Oncorhynchus mykiss): 18 mg/L 96 h

Methanol:
EC₅₀, Water flea (Daphnia magna): > 10,000 mg/L 48 h
LC₅₀, Fathead minnow (Pimephales promelas): > 100 mg/L 96 h

Eosin Y, Sodium Salt:
No information found.

Persistence and Degradability: This product is expected to be biodegradable and unlikely to bioaccumulate.

Environmental Effects: May be harmful to aquatic organisms. May adversely affect the pH of aquatic ecosystems. Avoid release to the environment.

13. DISPOSAL INFORMATION

Disposal Instructions: Dispose of this material and its container to an approved waste collection point. Minimize exposure to product waste (see Section 8). Do not dispose unused waste down drains or

into sewers. All wastes must be handled in accordance with local, state, and federal regulations.

Contaminated Packaging: Because containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

Waste Codes: Formaldehyde: U122 (US RCRA Hazardous Waste U List)
Methanol: U154 (US RCRA Hazardous Waste U List)

14. TRANSPORT INFORMATION

DOT: Not regulated.

Environmental Hazard Regulations: No information found.

Other Transport Precautions: DOT Reportable Quantity: Formaldehyde: 100 lb
Methanol: 5000 lb

15. REGULATORY INFORMATION

U.S. Federal Regulations:

OSHA: This product is not considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Inventory: All components of this product are on the U.S. TSCA Inventory.

U.S. EPCRA (SARA Title III):

Section 302: Extremely Hazardous Substance: Formaldehyde
Threshold Planning Quantity: 500 lb

Sections 311/312:

Hazard Category	List (Yes/No)
Section 311 – Hazardous Chemical	Yes
Immediate Hazard	Yes
Delayed Hazard	Yes
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	No

Section 313: De Minimis Concentration: Formaldehyde: 0.1%
Methanol: 1.0%

CERCLA Reportable Quantities: Formaldehyde: 100 lb
Methanol: 5000 lb

International Inventories:

Country or Region	Inventory Name	On Inventory (Yes/No)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*A "Yes" indicates that the listed components of this product comply with the inventory requirements administered by the governing country or region.

16. OTHER INFORMATION**Disclaimer:**

Rocky Mountain Reagents, Inc. provides the information in this Safety Data Sheet in the belief that it is reliable but assumes no responsibility for its completeness or accuracy. The physical properties reported in this SDS are obtained from literature and do not constitute product specifications. Rocky Mountain Reagents, Inc. makes and gives no representations or warranties with respect to the information contained herein or the product to which it refers, whether express, implied, or statutory, including without limitation, warranties of accuracy, completeness, merchantability, non-infringement, performance, safety, suitability, stability, and fitness for a particular purpose. No warranty against infringement of any patent, copyright or trademark is made or implied. This SDS is intended only as a guide to the appropriate handling of the material by a properly trained person. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. Accordingly, Rocky Mountain Reagents, Inc. assumes no liability whatsoever for the use of or reliance upon this information including results obtained, incidental or consequential damages, or lost profits.

Issue Date:

February 6, 2017

Reason for Revision:

Not applicable.