

MSDS# 93399

Section 1 - Chemical Product and Company Identification

MSDS Name: Chemically competent 5 alpha, 5 alpha F' cells

Catalog Numbers: BP4000-1, BP4000-2, BP4000-3, BP4000-4, BP4001-1, BP4001-96, BP4002-1, BP4003-1, BP4003-2, BP4003-3, BP4003-4

Synonyms: None Known.

Company Identification: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

Risk Phrases:

CAS#: 56-81-5
Chemical Name: Glycerin
%: 5-15
EINECS#: 200-289-5
Hazard Symbols:

Risk Phrases:

CAS#: 67-68-5
Chemical Name: Dimethyl sulfoxide
%: <10
EINECS#: 200-664-3
Hazard Symbols: XI

Text for R-phrases: see Section 16

Hazard Symbols: XI



Risk Phrases: 36

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Causes eye irritation. Hygroscopic (absorbs moisture from the air). May be absorbed through intact skin. May cause liver and kidney damage. Good laboratory procedures are recommended when handling this compound. May cause skin and respiratory tract irritation. Target Organs: Kidneys, liver, eyes.

Potential Health Effects

Eye: Causes eye irritation. May cause chemical conjunctivitis.

Skin: May cause skin irritation.

Ingestion: May cause irritation of the digestive tract. May cause garlic smell on the breath and body.
 Inhalation: May cause respiratory tract irritation.
 Chronic: Prolonged or repeated skin contact may cause dermatitis. May cause liver and kidney damage.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
 Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
 Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water.
 Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
 Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
 Extinguishing Media: Cool containers with flooding quantities of water until well after fire is out. Use water spray, dry chemical, carbon dioxide, or appropriate foam.
 Autoignition Temperature: Not applicable.
 Flash Point: Not applicable.
 Explosion Limits: Lower: Not available
 Explosion Limits: Upper: Not available
 NFPA Rating: health: 2; flammability: 0; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
 Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. In case of spill, sweep up solid or absorb liquid with inert material, then place into a biohazard container. Wear protective equipment. Autoclave wastes generated through use.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. This material should be handled at the biosafety level 1 (BSL1). Competent cells should be handled gently during the thawing process, and should be used promptly after thawing.
 Storage: Store in a tightly closed container. Store protected from moisture. Upon receipt, store cells immediately at -70°C since they are sensitive to even small rises in temperature.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Glycerin	10 mg/m ³ (mist)	none listed	15 mg/m ³ TWA (total); 5 mg/m ³ TWA (respirable fraction)
Dimethyl sulfoxide	none listed	none listed	none listed

OSHA Vacated PELs: Glycerin: 10 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction) Dimethyl sulfoxide: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a

Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: Clear

Odor: slight odor - sulfurous odor - garlic-like odor

pH: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: Not available

Decomposition Temperature: Not available

Solubility in water: Not available.

Specific Gravity/Density: Not available.

Molecular Formula: Solution

Molecular Weight: 0

Section 10 - Stability and Reactivity

Chemical Stability:	Hygroscopic: absorbs moisture or water from the air. Material is heat sensitive and may decompose at elevated temperatures.
Conditions to Avoid:	Excess heat, exposure to moist air or water.
Incompatibilities with Other Materials	Oxidizing agents, lead oxide, nitric acid, sulfuric acid, hydrogen peroxide, potassium permanganate, perchloric acid.
Hazardous Decomposition Products	Carbon monoxide, oxides of sulfur, carbon dioxide.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 56-81-5: MA8050000 CAS# 67-68-5: PV6210000
LD50/LC50:	RTECS: CAS# 56-81-5: Draize test, rabbit, eye: 126 mg Mild; Draize test, rabbit, eye: 500 mg/24H Mild; Draize test, rabbit, skin: 500 mg/24H Mild; Inhalation, rat: LC50 = >570 mg/m ³ /1H; Oral, mouse: LD50 = 4090 mg/kg; Oral, rabbit: LD50 = 27 gm/kg; Oral, rat: LD50 = 12600 mg/kg; Skin, rabbit: LD50 = >10 gm/kg; . RTECS: CAS# 67-68-5: Draize test, rabbit, eye: 100 mg; Draize test, rabbit, eye: 500 mg/24H Mild;

Draize test, rabbit, skin: 500 mg/24H Mild;
Oral, mouse: LD50 = 7920 mg/kg;
Oral, rat: LD50 = 14500 mg/kg;
Skin, rat: LD50 = 40 gm/kg;

Carcinogenicity: Glycerin - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Dimethyl sulfoxide - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: For more information, see "HANDBOOK OF ENVIRONMENTAL FATE AND EXPOSURE DATA."

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Please contact Fisher Scientific for shipping information

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: CARBON DIOXIDE, SOLID

Hazard Class: 9

UN Number: UN1845

Packing Group: III

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36 Irritating to eyes.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS# 56-81-5: 0

CAS# 67-68-5: 1

Canada

CAS# 56-81-5 is listed on Canada's DSL List

CAS# 67-68-5 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2B

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

CAS# 56-81-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 67-68-5 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 56-81-5 is listed on the TSCA Inventory.

CAS# 67-68-5 is listed on the TSCA

Section 16 - Other Information

MSDS Creation Date: 12/16/2004

Revision #5 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
