



SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company/undertaking

Identification of the substance/preparation

Product code A1097101
Product name CHO DG44 cells (cGMP banked)

Company/Undertaking Identification

Life Technologies
5791 VAN ALLEN WAY
PO BOX 6482
CARLSBAD, CA 92008
+1 760 603 7200

INVITROGEN CORPORATION
5250 MAINWAY DRIVE
BURLINGTON, ONT
CANADA L7L 6A4
800/263-6236

24 hour Emergency Response: 866-536-0631
301-431-8585
Outside of the U.S. +1-301-431-8585

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

2. Hazards identification

GHS - Classification

Signal Word
not hazardous

Health Hazard
not hazardous

Physical Hazards
not hazardous

Principle Routes of Exposure/ Potential Health effects

Eyes May cause eye irritation with susceptible persons.
Skin Components of the product may be absorbed into the body through the skin. May cause skin irritation in susceptible persons.
Inhalation May cause irritation of respiratory tract.

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Ingestion May be harmful if swallowed.

Specific effects

Carcinogenic effects not applicable
Mutagenic effects not applicable
Reproductive toxicity not applicable
Sensitization not applicable

Target Organ Effects No known effects under normal use conditions.

HMIS

Health	1
Flammability	0
Reactivity	0

3. Composition/information on ingredients

Chemical Name	CAS-No	EINECS-No	Weight %
dimethylsulfoxide	67-68-5	200-664-3	7-13
Zinc compounds, inorganic	None	-	<0.01
Cadmium compounds	None	-	<0.01
Selenium compounds	none	-	<0.01
Copper compounds, inorganic	None	-	<0.01
Barium compounds	None	-	<0.01
Silver compounds, inorganic	None	-	<0.01
Tin compounds, inorganic	None	-	<0.01
2-mercaptoethanol	60-24-2	200-464-6	<0.01

We recommend handling all chemicals with caution.

4. First aid measures

Skin contact Wash off immediately with plenty of water. If symptoms persist, call a physician.
Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.
Ingestion Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.
Inhalation Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.
Notes to physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media Water spray. Carbon dioxide (CO2). Foam. Dry chemical.
Special protective equipment for firefighters Wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

Personal precautions Use personal protective equipment.
Methods for cleaning up Soak up with inert absorbent material.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

See Section 12 for additional information.

7. Handling and storage

Handling Storage

Always wear recommended Personal Protective Equipment.
Keep in properly labelled containers.

8. Exposure controls/personal protection

Exposure limits

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
dimethylsulfoxide	none	none	none	none
Zinc compounds, inorganic	none	none	none	none
Cadmium compounds	none	none	none	none
Selenium compounds	none	none	none	none
Copper compounds, inorganic	none	none	none	none
Barium compounds	none	none	none	none
Silver compounds, inorganic	none	none	none	none
Tin compounds, inorganic	none	none	none	none
2-mercaptoethanol	none	none	none	none

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection

Impervious butyl rubber gloves. Nitrile gloves are not recommended. Some brands of Nitrile gloves have breakthrough times of five minutes.

Eye protection

Safety glasses with side-shields.

Skin and body protection.

Lightweight protective clothing.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

Prevent product from entering drains.

9. Physical and chemical properties

General Information

Form

liquid

Appearance

No information available

Odor

No information available

Boiling Point/Range	°C no data available	°F no data available
Melting point/range	°C no data available	°F no data available
Flash point	°C no data available	°F no data available
Autoignition temperature	°C no data available	°F no data available
Oxidizing properties	No information available.	
Water solubility	soluble	

10. Stability and reactivity

Stability	Stable.
Materials to avoid	No information available.
Hazardous decomposition products	No information available.
polymerization	Hazardous polymerisation does not occur.

11. Toxicological information

Acute toxicity

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
dimethylsulfoxide	14500 mg/kg Oral LD50	no data available	no data available
Zinc compounds, inorganic	no data available	no data available	no data available
Cadmium compounds	no data available	no data available	no data available
Selenium compounds	no data available	no data available	no data available
Copper compounds, inorganic	no data available	no data available	no data available
Barium compounds	no data available	no data available	no data available
Silver compounds, inorganic	no data available	no data available	no data available
Tin compounds, inorganic	no data available	no data available	no data available
2-mercaptoethanol	244 mg/kg Oral LD50	no data available	250 ppm/8h

Principle Routes of Exposure/ Potential Health effects

Eyes	May cause eye irritation with susceptible persons.
Skin	Components of the product may be absorbed into the body through the skin May cause skin irritation in susceptible persons.
Inhalation	May cause irritation of respiratory tract.
Ingestion	May be harmful if swallowed.
Carcinogenic effects	No information available.
Mutagenic effects	No information available.
Reproductive toxicity	No information available.
Sensitization	No information available.

12. Ecological information

Ecotoxicity effects	Daphnia magna (Water flea)
Mobility	No information available.
Biodegradation	Inherently biodegradable
Bioaccumulation	Does not bioaccumulate.

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
dimethylsulfoxide 67-68-5	Skeletonema costatum EC50=12350 - 25500 mg/L (96 h)	Daphnia species EC50=7000 mg/L (24 h)			logPow-2.03
2-mercaptoethanol 60-24-2	Desmodesmus subspicatus EC50=12 mg/L (72 h)	Daphnia magna EC50=1.52 mg/L (48 h)			logPow-0.056

13. Disposal considerations

Dispose of in accordance with local regulations.

14. Transport information

IATA

Proper shipping name	Not classified as dangerous in the meaning of transport regulations
Hazard class	none
Subsidiary Class	none
Packing group	none
UN-No	none

15. Regulatory information

Component	TSCA
dimethylsulfoxide 67-68-5 (7-13)	Listed
Zinc compounds, inorganic None (<0.01)	-
Cadmium compounds None (<0.01)	-
Selenium compounds none (<0.01)	-
Copper compounds, inorganic None (<0.01)	-
Barium compounds None (<0.01)	-
Silver compounds, inorganic None (<0.01)	-
Tin compounds, inorganic None (<0.01)	-
2-mercaptoethanol 60-24-2 (<0.01)	Listed

U.S. Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contains HAPs.

U.S. State Regulations

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
dimethylsulfoxide	-	-	-	-	-
Zinc compounds, inorganic	-	-	-	-	-
Cadmium compounds	-	-	-	-	-
Selenium compounds	-	-	-	-	-
Copper compounds, inorganic	-	-	-	-	-
Barium compounds	-	-	-	-	-
Silver compounds, inorganic	-	-	-	-	-
Tin compounds, inorganic	-	-	-	-	-
2-mercaptoethanol	Listed	-	Listed	-	-

California Proposition 65

This product does not contain chemicals listed under Proposition 65

WHMIS Hazard Class

D2B Toxic materials



This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

16. Other information

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Reason for Revision (M)SDS sections updated.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

End of Safety Data Sheet