

Material Safety Data Sheet

Creation Date 23-Apr-2009

Revision Date 23-Apr-2009

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Clones
Cat No.	Clones
Synonyms	No information available.
Recommended Use	Laboratory chemicals
Company	Emergency Telephone Number
Thermo Fisher Scientific	Chemtrec US: (800) 424-9300
Open Biosystem Products	Chemtrec EU: (202) 483-7616
601 Genone Way # 2100	
Huntsville, AL 35806 United States	
Tel: (303) 604-9499	
Fax:(303) 604-9680	

2. HAZARDS IDENTIFICATION

CAUTION!

Emergency Overview

May cause eye, skin, and respiratory tract irritation . Handle in accordance with good industrial hygiene and safety practice. The toxicological properties have not been fully investigated.

Appearance Yellow Brown

Physical State Liquid.

Odor No information available

Target Organs Liver, Kidney

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes

Skin

Inhalation

Ingestion

May cause irritation.

May cause irritation. May be harmful in contact with skin.

May cause irritation of respiratory tract. May be harmful if inhaled.

May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects

Tumorigenic effects have been reported in experimental animals.. Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse liver effects. May cause adverse kidney effects.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions

Preexisting eye disorders. Kidney disorders. Skin disorders.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Peptones	73049-73-7	1
Water	7732-18-5	80 - 96
Sodium chloride	7647-14-5	1
Agar	9002-18-0	1 - 2
Yeast, ext.	8013-01-2	0.5
Glycerol	56-81-5	8

4. FIRST AID MEASURES

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

Ingestion

Do not induce vomiting. Obtain medical attention.

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

**Flash Point
Method**

Not applicable
No information available.

**Autoignition Temperature
Explosion Limits**

No information available.

**Upper
Lower**

No data available
No data available

Suitable Extinguishing Media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..

Unsuitable Extinguishing Media

No information available.

Hazardous Combustion Products

No information available.

**Sensitivity to mechanical impact
Sensitivity to static discharge**

No information available.
No information available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA **Health 1** **Flammability 0** **Instability 0** **Physical hazards N/A**

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Soak up with inert absorbent material. Keep in suitable and closed containers for disposal.

7. HANDLING AND STORAGE

Handling Ensure adequate ventilation. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist.

Storage Keep container tightly closed in a dry and well-ventilated place. Long term. Keep at -80°C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Glycerol	= 10 mg/m ³ TWA	= 10 mg/m ³ TWA total dust = 5 mg/m ³ TWA respirable fraction = 15 mg/m ³ TWA total	

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Glycerol	= 10 mg/m ³ TWAEV mist	= 10 mg/m ³ TWA mist	= 10 mg/m ³ TWAEV

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Yellow Brown
Odor	No information available
Odor Threshold	No information available.
pH	Not applicable
Vapor Pressure	No information available.
Vapor Density	No information available.
Viscosity	No information available.
Boiling Point/Range	Not applicable
Melting Point/Range	No information available.
Decomposition temperature °C	No information available.
Flash Point	Not applicable
Evaporation Rate	No information available.
Specific Gravity	No information available.
Solubility	No information available.
log Pow	No data available

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Excess heat.
Incompatible Materials	None known
Hazardous Decomposition Products	None known
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	None under normal processing..

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	> 90 mL/kg Oral LD50 Rat	> 90 mL/kg Oral LD50 Rat	> 90 mL/kg Oral LD50 Rat
Sodium chloride	> 42 g/m ³ Inhalation LC50 Rat 1 h > 10 g/kg Dermal LD50 Rabbit = 3 g/kg Oral LD50 Rat > 42 g/m ³ Inhalation LC50 Rat 1 h	= 3 g/kg Oral LD50 Rat > 10 g/kg Dermal LD50 Rabbit > 42 g/m ³ Inhalation LC50 Rat 1 h	> 42 g/m ³ Inhalation LC50 Rat 1 h > 10 g/kg Dermal LD50 Rabbit = 3 g/kg Oral LD50 Rat > 42 g/m ³ Inhalation LC50 Rat 1 h
Agar	11000 g/kg (Rat)	Not listed	Not listed
Glycerol	> 570 mg/m ³ Inhalation LC50 Rat 1 h > 21900 mg/kg Dermal LD50 Rat = 12600 mg/kg Oral LD50 Rat > 570 mg/m ³ Inhalation LC50 Rat 1 h	= 12600 mg/kg Oral LD50 Rat > 21900 mg/kg Dermal LD50 Rat > 570 mg/m ³ Inhalation LC50 Rat 1 h	> 570 mg/m ³ Inhalation LC50 Rat 1 h > 21900 mg/kg Dermal LD50 Rat = 12600 mg/kg Oral LD50 Rat > 570 mg/m ³ Inhalation LC50 Rat 1 h

Irritation No information available.

Toxicologically Synergistic Products No information available.

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

Sensitization No information available.

Mutagenic Effects Mutagenic effects have occurred in experimental animals.

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects No information available.

Teratogenicity No information available.

Other Adverse Effects Tumorigenic effects have been reported in experimental animals.. See actual entry in RTECS for complete information..

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Sodium chloride	Not listed	= 12946 mg/L LC50 Lepomis macrochirus 96 h static = 7650 mg/L LC50 Pimephales promelas 96 h static = 9675 mg/L LC50 Lepomis macrochirus 96 h flow-through	Not listed	= 1000 mg/L EC50 Daphnia magna 48 h
Glycerol	Not listed	51000 - 57000 mg/L LC50 Oncorhynchus mykiss 96 h	Not listed	> 500 mg/L EC50 Daphnia magna 24 h

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility

Component	log Pow
Glycerol	= -1.76

13. DISPOSAL CONSIDERATIONS

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

All of the components in the product are on the following Inventory lists: All of the components in the product are on the following Inventory lists:

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Peptones	Present	Present	-	-	-		Present	-	Present	Present	KE-28131
Water	Present	Present	-	-	-		Present	-	Present	Present	KE-35400
Sodium chloride	Present	Present	-	231-598-3	-		Present	1-236	Present	Present	KE-31387
Agar	XU	X	-	232-658-1	-		X	-	X	X	KE-00275 X
Yeast, ext.	XU	Present	-	-	-		Present	-	Present	Present	KE-05-1355
Glycerol	Present	Present	-	200-289-5	-		Present	2-242; 7-338	Present	Present	KE-29297

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

- P - Indicates a commenced PMN substance
- R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
- T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
- XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
- Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
- Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313
Not applicable

SARA 311/312 Hazardous Categorization

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act
Not applicable

Clean Air Act
Not applicable

OSHA
Not applicable

CERCLA
Not Applicable

California Proposition 65
This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Glycerol	Present (mist)	-	Present	-	Toxic (mist); Flammable (mist)

U.S. Department of Transportation

Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Canada

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

WHMIS Hazard Class

Non-controlled

16. OTHER INFORMATION

Prepared By	Regulatory Affairs Thermo Fisher Scientific Tel: (412) 490-8932
Creation Date	23-Apr-2009
Print Date	23-Apr-2009
Revision Summary	"***", and red text indicates revision

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS