

Material Safety Data Sheet

Section 1 –Product and Company Identification

Moni-Trol® H • Liquid Chemistry Control

Catalog Number	M5155-1 Moni-Trol® • H, Level 1 (6 x 5 mL) M5155-2 Moni-Trol® • H, Level 2 (6 x 5 mL) M5155-3 Moni-Trol® • H, Level 3 (6 x 5 mL) M5155-SP Moni-Trol® • H, sample pack (3 x 5 mL) M5158-1 Moni-Trol® • H, Level 1 (10 x 15 mL) M5158-2 Moni-Trol® • H, Level 2 (10 x 15 mL) M5158-3 Moni-Trol® • H, Level 3 (10 x 15 mL) M5158-SP Moni-Trol® • H, sample pack (3 x 15 mL)
Description	Clinical Diagnostic Control Kits
Synonyms	M5155-1 Moni-Trol® • H, Level 1 Liquid Assayed Chemistry Control M5155-2 Moni-Trol® • H, Level 2 Liquid Assayed Chemistry Control M5155-3 Moni-Trol® • H, Level 3 Liquid Assayed Chemistry Control M5155-SP Moni-Trol® • H, sample pack Liquid Assayed Chemistry Control M5158-1 Moni-Trol® • H, Level 1 Liquid Unassayed Chemistry Control M5158-2 Moni-Trol® • H, Level 2 Liquid Unassayed Chemistry Control M5158-3 Moni-Trol® • H, Level 3 Liquid Unassayed Chemistry Control M5158-SP Moni-Trol® • H, sample pack Liquid Unassayed Chemistry Control
Company Identification	Microgenics Corporation
Office Address	46360 Fremont Blvd.
City, State, Zip Code	Fremont, CA 94538
Company Phone Number	(510) 979-5000
Emergency Phone Number	(510) 979-5000
CHEMTREC Phone Number, US	(800) 424-9300
CHEMTREC Phone Number, Europe	(202) 483-7616

Section 2 –Hazard Identification

Caution! This material contains substance of human and bovine origin. Even though tests are negative for infectious diseases, this product should be handled as a potentially infectious biological material. By normal use the product is not regarded as hazardous to health. The product is not classified as flammable or harmful to the environment; may cause eyes, skin, digestive track, and respiratory track irritation. The toxicological properties of this material have not been fully investigated. This product is not classified as dangerous in accordance with Directive 1999/45/EC or 67/548/EEC

Section 3 – Composition/Information on Ingredients

CAS #	Component Name	Content	EINECS/ELINCS
66-81-9	Cycloheximide	0.01- 0.08%	200-636-0
64-17-5	Ethyl alcohol	0.01- 0.08%	200-578-6
50-06-6	Phenobarbital	0.01- 0.08%	200-007-0
298-46-4	Carbamazepine	0.01-0.08%	206-062-7
630-93-3	Phenytoin	0.01-0.08%	211-148-2
99-66-1	Valproic acid	0.01-0.08%	202-777-3
1405-41-0	Gentamicin	0.01-0.08%	215-778-9
7732-18-5	Water	59.1-64.7%	231-791-2
N/A	Human Serum	35-40%	N/A
N/A	BSA	0.2-0.3%	N/A

Component comments Have no OSHA, Canadian, or EU hazardous ingredients above applicable threshold. The product contains protein materials, salts and stabilizer

Section 4 – First Aid Measures

Eyes	In case of contact immediately remove any contact lenses, hold the eyelids apart and flush eyes with plenty of water for at least 15 minutes. Consult physician if symptoms should occur
Skin	In case of contact remove contaminated clothing immediately, wash area with soap and flush with plenty of water. Get medical attention if irritation develops and persists
Ingestion	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Drink plenty of water. Get medical attention
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult physician
Notes to Physician	Treat symptomatically

Section 5 – Fire Fighting Measures

Personal protective equipment	Combustion products may be health hazardous. In case of evacuation use OSHA/NIOSH (or equivalent) approved protection mask. See section 8
Flammable properties	Liquid product is not combustible; solid product may burn
Extinguishing Media	All common fire extinguishing agents may be used
Protection of Firefighters	Minimum protection for all firefighters should include a self-containing breathing apparatus (SCBA) an full fire-fighting turn out gear. Upon decomposition this product may emit carbon dioxide, carbon monoxide and/or low molecular weight hydrocarbons
NFPA Rating (estimated)	Health: 1; Flammability: 0; Instability: 0
HMIS Rating (estimated)	Health: 1; Flammability: 0; Instability: 0

Section 6 – Accidental Release Measures

Personal precautions	Use proper personal protective equipment as indicated in Section 8. Keep unnecessary personnel away
Environmental precautions	Product is not water pollutant. Keep out of drains, sewers, ditches and open waterways.
Methods for containment	If without risk prevent further spread of spilled material or leaking containers. Where possible dike the spilled material. Absorb spill with inert material e.g. vermiculite, sand or diatomaceous earth
Methods for clean-up	Clean up spills immediately, observing precautions in the Exposure Controls/Personal Protection, Section 8. Place in suitable container and provide ventilation. Wash area with a 5% chlorine bleach solution or equivalent, then rinse with water
Other information	For reporting requirements refer to Section 15

Section 7 – Handling and Storage

Handling	Keep container tightly closed. Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Use with adequate ventilation. Material produced in compliance to USDA and/or CPMP/BWP/1230/98 (or amendment as applicable) (Guidance on Minimizing the Risk of Transmitting Animal Spongiform Encephalopathy Agents via Medicinal Products). This is a CPMP/BWP/1230/98 Category IV material: It does not contain, nor is it derived from Specified Risk Materials as defined in Commission decision 97/534/EC (or successive amendments). This material is prepared from a human source base. Donors have been tested by FDA approved methods and found negative for antibodies to HIV-1 and HIV-2, non-reactive for HBsAg, and non-reactive for HCV. Handle as potentially infectious material. This material should be handled at the biosafety level 2 (BSL2) as required by OSHA Bloodborne Pathogen Rule (29 CFR 1910.1030.7) and consistent with the U.S. Department of Health and Human Services, the U.S. Public Health Service, Centers for Disease Control (CDC), and National Institute of Health (NIH) guidelines "Biosafety in Microbiological and Biomedical Laboratories" (May 1988, HHS Publication No. (NIH) 88-8395)
Storage	Store in a tightly closed container. For shelf life, store between 2° to 8°C

Section 8 – Exposure Controls/ Personal Protection

Occupational Exposure Limits

Chemical Name – Cycloheximide

OSHA PEL					ACGIH TLV			AIHA		NIOSH REL			
Ceiling	TWA	STEL	Final	Vacated	Ceiling	TWA	STEL	WEEL	OEL	Ceiling	TWA	STEL	IDLH
Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Section 8 – Exposure Controls/ Personal Protection- continued

Chemical Name – Ethyl alcohol

OSHA PEL					ACGIH TLV			AIHA		NIOSH REL			
Ceiling	TWA	STEL	Final	Vacated	Ceiling	TWA	STEL	WEEL	OEL	Ceiling	TWA	STEL	IDLH
Not listed	1000 ppm 1900 mg/m3	Not listed	1000 ppm 1900 mg/m3	1000 ppm 1900 mg/m3	Not listed	1000 ppm	1000 ppm	Not listed	180 ppm (detectable); 100 ppm (recognizable)	Not listed	1000 ppm 1900 mg/m3	Not listed	3300 ppm

Chemical Name -Phenobarbital

OSHA PEL					ACGIH TLV			AIHA		NIOSH REL			
Ceiling	TWA	STEL	Final	Vacated	Ceiling	TWA	STEL	WEEL	OEL	Ceiling	TWA	STEL	IDLH
Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Chemical Name - Carbamazepine

OSHA PEL					ACGIH TLV			AIHA		NIOSH REL			
Ceiling	TWA	STEL	Final	Vacated	Ceiling	TWA	STEL	WEEL	OEL	Ceiling	TWA	STEL	IDLH
Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Chemical Name - Phenytoin

OSHA PEL					ACGIH TLV			AIHA		NIOSH REL			
Ceiling	TWA	STEL	Final	Vacated	Ceiling	TWA	STEL	WEEL	OEL	Ceiling	TWA	STEL	IDLH
Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Chemical Name - Valproic acid

OSHA PEL					ACGIH TLV			AIHA		NIOSH REL			
Ceiling	TWA	STEL	Final	Vacated	Ceiling	TWA	STEL	WEEL	OEL	Ceiling	TWA	STEL	IDLH
Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Chemical Name - Gentamicin

OSHA PEL					ACGIH TLV			AIHA		NIOSH REL			
Ceiling	TWA	STEL	Final	Vacated	Ceiling	TWA	STEL	WEEL	OEL	Ceiling	TWA	STEL	IDLH
Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Chemical Name - Water

OSHA PEL					ACGIH TLV			AIHA		NIOSH REL			
Ceiling	TWA	STEL	Final	Vacated	Ceiling	TWA	STEL	WEEL	OEL	Ceiling	TWA	STEL	IDLH
Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Chemical Name – Human serum

OSHA PEL					ACGIH TLV			AIHA		NIOSH REL			
Ceiling	TWA	STEL	Final	Vacated	Ceiling	TWA	STEL	WEEL	OEL	Ceiling	TWA	STEL	IDLH
Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Chemical Name - BSA

OSHA PEL					ACGIH TLV			AIHA		NIOSH REL			
Ceiling	TWA	STEL	Final	Vacated	Ceiling	TWA	STEL	WEEL	OEL	Ceiling	TWA	STEL	IDLH
Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

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 below the permissible exposure limits. Ventilation fans and other electrical service must be non-sparking and have an explosion-proof design

Section 8 – Exposure Controls/ Personal Protection- continued

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 protection	Wear appropriate protective gloves to prevent skin exposure. No skin irritation expected
Respiratory protection	A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use
General Hygiene Considerations	Wear appropriate protective clothing to prevent skin exposure

Section 9 – Physical and Chemical Properties

Appearance	Clear	Flash point	No information
Odor and odor threshold	No information	Flammable properties	No information
Physical State	Liquid	Solubility in water	Miscible
PH	5-8	Density/specific Gravity	No information
Vapor density	No information	Evaporation rate	No information
Boiling point	No information	Octanol/Water partition coefficient (K _{ow})	No information
Vapor pressure	No information	Auto-ignition temperature	No information
Melting Point/Freezing Point	No information	Decomposition Temperature	No information

Section 10 – Stability and Reactivity

Chemical Stability	Stable at room temperature in closed containers under normal storage and handling conditions
Conditions to Avoid	Excess heat
Incompatible Materials	None reported
Hazardous Decomposition Products	None
Possibility of hazardous reactions	Has not been reported

Section 11 – Toxicological Information

Acute dose effect (LD50/LC50)

CAS#66-81-9	Draize test, rabbit, skin: 1 pph/24H Moderate Intraperitoneal, rat: LD50 = 3700 ug/kg Intravenous, rat: LD50 = 2 mg/kg Intraperitoneal, mouse: LD50 = 100 mg/kg Subcutaneous, mouse: LD50 = 160 mg/kg Oral, dog: LD50 = 1 mg/kg Intraperitoneal, cat: LD50 = 4 mg/kg Subcutaneous, guinea pig: LD50 = 60 mg/kg	Oral, rat: LD50 = 2 mg/kg Oral, mouse: LD50 = 133 mg/kg Intravenous, mouse: LD50 = 150 mg/kg Oral, monkey: LD50 = 60 mg/kg Oral, guinea pig: LD50 = 60 mg/kg
CAS# 64-17-5	Draize test, rabbit, eye: 500 mg Severe Draize test, rabbit, skin: 20 mg/24H Moderate Inhalation, mouse: LC50 = 39 gm/m3/4H Intraperitoneal, mouse: LC50 = 528 mg/kg Inhalation, rat: LC50 = 20000 ppm/10H Oral, rat: LD50 = 7060 mg/kg Intravenous, rat: LD50 = 1440 mg/kg	Draize test, rabbit, eye: 500 mg/24H Mild Oral, rabbit: LD50 = 6300 mg/kg Intravenous, mouse: LD50 = 1973 mg/kg Subcutaneous, mouse: LD50 = 8285 mg/kg Oral, mouse: LD50 = 3450 mg/kg Intraperitoneal, rat: LD50 = 3600 ug/kg Intraarterial, rat: LD50 = 11 mg/kg Intraarterial, rat: LD50 = 151 mg/kg Intravenous, rat: LD50 = 209 mg/kg Oral, mouse: LD50 = 137 mg/kg Subcutaneous, mouse: LD50 = 228 mg/kg Intramuscular, mouse: LD50 = 175 mg/kg Intravenous, rabbit: LD50 = 187 mg/kg Oral, rabbit: LD50 = 2680 mg/kg
CAS# 50-06-6	Oral, rat: LD50 = 162 mg/kg Subcutaneous, rat: LD50 = 200 mg/kg Rectal, rat: LD50 = 284 mg/kg Intraperitoneal, mouse: LD50 = 116 mg/kg Intravenous, mouse: LD50 = 218 mg/kg Oral, rabbit: LD50 = 185 mg/kg	Oral, mouse: LD50 = 529 mg/kg Oral, rat: LD50 = 1957 mg/kg
CAS# 298-46-4	Oral, mouse: LD50 = 529 mg/kg Oral, rat: LD50 = 1957 mg/kg	Oral, rat: LD50 = >5 gm/kg
CAS# 630-93-3	Oral, mouse: LD50 = >11269 mg/kg	Oral, rat: LD50 = 670 mg/kg.
CAS# 99-66-1	Oral, mouse: LD50 = 1098 mg/kg	Oral, rat: LD50 = >5 gm/kg
CAS# 1405-41-0	Oral, mouse: LD50 = >11269 mg/kg	
CAS# 7732-18-5	Oral, rat: LD50 = 998.21 mg/cm ³ @20°C	

Repeated dose effect (NOAEL, LOEL)

Section 11 – Toxicological Information - continued

CAS#66-81-9	Intraperitoneal, hamster: LDLo = 40 mg/kg	Subcutaneous, chicken: LDLo = 2 mg/kg
CAS# 64-17-5	Oral, dog: LDLo = 5500 mg/kg	Intraperitoneal, dog: LDLo = 3 gm/kg
	Subcutaneous, dog: LDLo = 6 gm/kg	Intravenous, dog: LDLo = 1600 mg/kg
CAS# 50-06-6	Oral, woman: LDLo = 25272 ug/kg/13D-I	Oral, man: LDLo = 6485 ug/kg/2W-I
	Intraperitoneal, rabbit: LDLo = 150 mg/kg	Subcutaneous, rabbit: LDLo = 150 mg/kg
	Oral, cat; LDLo = 125 mg/kg	Subcutaneous cat; LDLo = 125 mg/kg

Irritation	prolonged exposure may cause irritation
Corrosivity	<i>No information found</i>
Sensitization (inhalation, dermal, ocular)	prolonged exposure may cause dermal irritation
Genotoxicity	Genotoxic properties are not known

Teratogenicity	Teratogenic properties are not known
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Reproductive system effect

CAS# 66-81-9	Intraperitoneal, rat: TDLo = 250 ug/kg female 10 day(s) after conception Parenteral, rat: TDLo = 750 ug/kg female 18 day(s) after conception Intraperitoneal, mouse: TDLo = 30 mg/kg female 10 day(s) after conception Subcutaneous, mouse: TDLo = 5 mg/kg female 11 day(s) after conception Parenteral, rabbit: TDLo = 5 ug/kg female 1 day(s) after conception Intraperitoneal, hamster:: TDLo = 60 mg/kg female 1 day(s) pre-mating
CAS# 64-17-5	Oral, woman: TDLo = 41 gm/kg female 41 week(s) after conception Intravenous, woman: TDLo = 8 gm/kg female 32 week(s) after conception Intrauterine, woman: TDLo = 200 mg/kg female 5 day(s) pre-mating Oral, rat: TDLo = 322 gm/kg male 35 day(s) pre-mating Oral, rat: TDLo = 132 gm/kg female 1-22 day(s) after conception Inhalation, rat: TDLo = 20000 ppm/7H female 1-22 day(s) after conception Intraperitoneal, rat: TDLo = 15 gm/kg female 8-13 day(s) after conception Intravenous, rat: TDLo = 3 gm/kg female 6-7 day(s) after conception Intracerebral, rat: TDLo = 5 mg/kg female 1 day(s) pre-mating
CAS# 50-06-6	Oral, woman: TDLo = 151 mg/kg female 27-39 week(s) after conception Oral, rat: TDLo = 880 mg/kg female 7-17 day(s) after conception Intraperitoneal, rat: TDLo = 1 gm/kg female 1-20 day(s) after conception Subcutaneous, rat: TDLo = 320 mg/kg multigenerations Subcutaneous, rat: TDLo = 750 mg/kg female 1 day(s) pre-mating Intramuscular, rat: TDLo = 200 mg/kg female 18-20 day(s) after conception

Carcinogenicity (IARC, NTP, OSHA (NIOSH & ACGIH)) or CA Prop 65

None of the components present in this material at concentrations equal to or greater than 0.1% are listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

CAS# 66-81-9 Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65. NIOSH: Group I pesticide

CAS# 64-17-5 ACGIH: A4 -Not Classifiable as a Human Carcinogen

CAS# 50-06-6 ACGIH: Not listed California: carcinogen; initial date 1/1/90 NIOSH: Not listed NTP: Not listed

OSHA: Possible Select carcinogen IARC: Group 2B carcinogen

CAS# 298-46-4: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA

CAS# 630-93-3 IARC - Group 2B (Possibly Carcinogenic to Humans)

CAS# 99-66-1: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA

CAS# 1405-41-0: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA.

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65

Neurotoxicity	Neurotoxic properties are not known
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Section 11 – Toxicological Information - continued

Mutagenicity	
CAS# 66-81-9	DNA repair, Escherichia coli = 50 ug/disc Cytogenetic analysis, Drosophila melanogaster Cells: 100 mg/L
CAS# 64-17-5	DNA repair, Escherichia coli = 5 mg/well Cytogenetic analysis, Parenteral = 500 mmol/L
CAS# 50-06-6	DNA inhibition, rat Liver = 1500 umol/L Cytogenetic analysis, Human Lymphocyte = 10 mg/L
Target organ effect	Ingestion of significant amount may cause nausea and vomiting
Epidemiology	<i>No information found</i>
NOES Hazard Codes (NOHS, NOES)	RTECS
CAS# 66-81-9	84338 MA4375000
CAS# 64-17-5	31500 KQ6300000
CAS# 50-06-6	84369 CQ6825000
CAS# 298-46-4	X4467 HN8225000
CAS# 630-93-3	X4463 MU1400000
CAS# 99-66-1	X8970 YV7875000
CAS# 1405-41-0	X3126 LY2625000
CAS# 7732-18-5	M1000 ZC0110000

Section 12– Ecological Information

Ecotoxicity	Not regarded as dangerous for the environment LC/EC/IC50 > 100 mg/l
Persistence/Degradability	<i>No information found</i>
Bioaccumulation/Accumulation	<i>No information found</i>
Mobility in Environmental media	Soluble in water
Environmental	Not classified as harmful to the environment
Other Adverse Effects	<i>No information found</i>

Section 13 – Disposal Considerations

Waste from Residue/Unused Products	Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements. Consult US EPA guidelines for the classification and determination (RCRA 40CFR Parts 261). Chemical waste generators must determine whether discarded chemical is classified as hazardous waste. Ensure complete and accurate classification
Contaminated packaging	Clean container with water
RCRA P Series Wastes	None of the components are on this list
RCRA U Series Wastes	None of the components are on this list
EWC waste code	18 01 05 discard as chemicals and medicines
Other Information	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the a application for which the product was used

Section 14 – Transport Information

Not regulated as hazardous material under US DOT, TDG, UNECE, ADR, ADN, IATA, ICAO, RID, IMDG/IMO, OTIF, Mexico

Section 15 – Regulatory Information
US Federal

CAA -HAPs, CAA - Class 1, Class 2 Ozone Depletors, OSHA, OSHA - Highly Hazardous, SDWA, USDA, 21

CFR-IVD – *No information found*

CAS# 66-81-9

TSCA 8(b)	SARA 302	SARA 313	CERCLA	RCRA 261.33	TSCA 8(d)	TSCA 12(b)	FIFRA	CWC	SARA 311/312	EPICRA	CAA-SNAP	FDA	DEA
no	yes	no	yes	no	no	no	no	no	yes	no	no	no	yes

CAS# 64-17-5

TSCA 8(b)	SARA 302	SARA 313	CERCLA	RCRA 261.33	TSCA 8(d)	TSCA 12(b)	FIFRA	CWC	SARA 311/312	EPICRA	CAA-SNAP	FDA
no	no	no	no	no	no	no	yes	no	no	no	no	yes

Section 15 – Regulatory Information - continued
CAS# 50-06-6

TSCA 8(b)	SARA 302	SARA 313	CERCLA	RCRA 261.33	TSCA 8(d)	TSCA 12(b)	FIFRA	CWC	SARA 311/312	EPICRA
no	yes	no	no	no	no	no	no	no	yes	no
CAA-SNAP	FDA	DEA								
no	no	yes								

CAS# 298-46-4

TSCA 8(b)	SARA 302	SARA 313	CERCLA	RCRA 261.33	TSCA 8(d)	TSCA 12(b)	FIFRA	CWC	SARA 311/312	EPICRA	CAA- SNAP	FDA
no	no	no	no	no	no	no	no	no	no	no	no	no

CAS# 630-93-3

TSCA 8(b)	SARA 302	SARA 313	CERCLA	RCRA 261.33	TSCA 8(d)	TSCA 12(b)	FIFRA	CWC	SARA 311/312	EPICRA	CAA- SNAP	FDA	OSHA
yes	no	no	no	no	no	no	no	no	no	no	no	no	yes

CAS# 99-66-1

TSCA 8(b)	SARA 302	SARA 313	CERCLA	RCRA 261.33	TSCA 8(d)	TSCA 12(b)	FIFRA	CWC	SARA 311/312	EPICRA	CAA- SNAP	FDA
no	no	no	no	no	no	no	no	no	no	no	no	no

CAS# 1405-41-0

TSCA 8(b)	SARA 302	SARA 313	CERCLA	RCRA 261.33	TSCA 8(d)	TSCA 12(b)	FIFRA	CWC	SARA 311/312	EPICRA	CAA- SNAP	FDA
no	no	no	no	no	no	no	no	no	no	no	no	yes

CAS#7732-18-5

TSCA 8(b)	SARA 302	SARA 313	CERCLA	RCRA 261.33	TSCA 8(d)	TSCA 12(b)	FIFRA	CWC	SARA 311/312	EPICRA	CAA-SNAP	FDA
yes	no	no	no	no	no	no	yes	no	no	no	yes	no

CAS# 66-81-9: CERCLA/SARA Section 302, 100 lb lower threshold TPQ; 10000 lb upper threshold TPQ, 100 lb EPCRA RQ

CAS# 50-06-6 : U.S. - DEA (Drug Enforcement Administration) - Schedule IV Controlled Substances

Product as a whole is not subject to ITAR and EAR regulations

US State
State Right to Know

CAS# 66-81-9 can be found on the following state Right-to-Know lists – Delaware, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, Texas

CAS# 64-17-5 – Connecticut, Hawaii, Idaho, Indiana, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Vermont, Washington

CAS# 50-06-6 can be found on the following state Right-to-Know lists – Alabama, Arizona, Colorado, Connecticut, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Massachusetts, Michigan, Minnesota, Mississippi, New Mexico, Ohio, Oregon, Pennsylvania, West Virginia, Wisconsin, Wyoming – Schedule IV Controlled Substances

CAS# 630-93-3 can be found on the following state Right-to-Know lists California, Kentucky, Michigan, New York, Pennsylvania, Wisconsin

CAS# 99-66-1 can be found on the following state Right-to-Know lists California, Massachusetts

California

CAS# 66-81-9 is on the list of U.S. - California - 22 CCR - Presumed Extremely Hazardous Wastes, U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances, U.S. - California - Air Toxics Hot Spots Act - Appendix A-I Substances - Quantified Emissions, U.S. - California - Air Toxics Hot Spots Act - Emissions Inventory Criteria & Guidelines - Appendix A-I Substances – ADOA, U.S. - California - Regulated Substances for Accidental Release Prevention

CAS# 50-06-6 8 CCR Section 339 - Director's List of Hazardous Substances, Air Toxics Hot Spots Act - Emissions Inventory Criteria & Guidelines - Appendix A-III Substances, Schedule IV Controlled Substances, No Significant Risk Levels (NSRL)

CAS# 630-93-3 8 CCR Section 339 - Director's List of Hazardous Substances, Air Toxics Hot Spots Act - Appendix A-I Substances - Quantified Emissions, Air Toxics Hot Spots Act - Emissions Inventory Criteria & Guidelines - Appendix A-I Substances – ADOA

CAS# 99-66-1 Air Toxics Hot Spots Act - Emissions Inventory Criteria & Guidelines - Appendix A-III substances

Section 15 – Regulatory Information - continued
California Prop 65

WARNING: This product contains Cycloheximide, a chemical known to the state of California to cause birth defects or other reproductive harm January 1, 1989, Title 8 CCR, Title 22 CCR, AHS, Regulated Substances for Accidental Release Prevention - 100 lb TQ (in powdered form and with a particle size of less than 100 microns or if handled in solution or in molten form or the substance has an NFPA rating for reactivity of 2, 3 or 4); 10000 lb TQ (otherwise)

WARNING: This product contains Ethyl Alcohol is Known To The State of California To Cause developmental toxicity, initial date 10/1/87 (when in alcoholic beverages), Title 8 CCR, Title 22 CCR

WARNING: This product contains Phenobarbital, a chemical known to the State of California to cause cancer January 1, 1990, California 8 CCR Section 339 - Director's List of Hazardous Substances, California - Air Toxics Hot Spots Act - Emissions Inventory Criteria & Guidelines - Appendix A-III, California - No Significant Risk Levels (NSRL), 2 µg/day, California - Schedule IV Controlled Substances

WARNING: This product contains Carbamazepine a chemical known to the State of California to cause birth defects or other reproductive harm January 29, 1999

WARNING: This product contains Diphenylhydantoin (Phenytoin), sodium salt a chemical known to the State of California to cause January 1, 1988

WARNING: This product contains Valproate (Valproic acid) a chemical known to the State of California to cause birth defects or other reproductive harm July 1, 1987

WARNING: This product contains Gentamicin, sulfate (salt) (listed as Aminoglycosides), a chemical known to the state of California to cause developmental reproductive toxicity

Africa/ Asia-Pacific/Europe Non-EU /EU Member Countries/Latin America and Caribbean/ Middle East/Government Inventory Lists

CAS# 66-81-9

AICS	New Zealand-GHS	Russia	ENCS	Switzerland	Belgium	PICCS	Malaysia	Singapore	France	Germany VwVws	EINECS
yes	yes	no	yes	no	no	yes	yes	no	no	yes	200-636-0
India	Africa	Australia	Czech Republic	Indonesia	Japan (ENCS)	China	New Zealand	Thailand	Austria	Check	Luxembourg
yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Malta	Netherlands	UK	Philippines	KE CL	Bermuda	Latvia	Estonia	Lithuania	Hungary	EC	Italy
yes	yes	yes	yes	yes	yes	no	yes	no	yes	no	yes

CAS# 64-17-5

AICS	New Zealand	Russia	ENCS	Switzerland	Belgium	PICCS	Malaysia	Singapore	France	Germany VwVws	Latvia	Lithuania	EC	EINECS
yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	200-578-6
Korea	South Africa	Tanzania	Vietnam	New Zealand	Hong Kong	Taiwan	India	Netherlands	Egypt	Japan (ENCS)	China	Australia	Poland	Indonesia
yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	Yes	yes	yes	yes	yes
Croatia	Island	Norway	Turkey	Australia	Bulgaria	Check	Denmark	Estonia	Finland	Greece	Hungary	Romania	Slovenia	Spain
yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sweden	UK	Thailand	Slovak	Portugal	Argentina	Bermuda	Brazil	Chile	Colombia	Mexico	Israel	Venezuela	Peru	Nicaragua
yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

CAS# 50-06-6

AICS	New Zealand-GHS	Russia	ENCS	Switzerland	Belgium	PICCS	Malaysia	Singapore	France	Germany VwVws	EINECS
yes	yes	yes	yes	yes	no	yes	no	yes	no	no	200-007-0
Egypt	South Africa	Australia	Cambodia	China	India	Japan	Korea	Philippines	Taiwan	Thailand	Bermuda
yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Latvia	Iceland	Lithuania	Denmark	EC							
no	yes	no	yes	no							

Section 15 – Regulatory Information - continued
CAS# 298-46-4

AICS	New Zealand-GHS	Russia	ENCS	Switzerland	Belgium	PICCS	Malaysia	Singapore	France	EINECS
yes	yes	no	yes	no	no	yes	yes	yes	no	206-062-7
Australia	Japan	China	KECL	Bermuda	Germany VwVws	Latvia	Lithuania	EC		
yes	yes	yes	yes	Yes	yes	no	no	no		

CAS# 630-93-3

AICS	New Zealand-GHS	Russia	ENCS	Switzerland	Belgium	PICCS	Malaysia	Singapore	France	Germany VwVws	EINECS
yes	yes	no	no	no	no	no	no	no	no	no	211-148-2
Japan	Denmark	KECL	HPV-LPV	Bermuda	Latvia	Lithuania	EC				
yes	yes	yes	yes	yes	no	no	no				

CAS# 99-66-1

AICS	New Zealand-GHS	Russia	ENCS	Switzerland	Belgium	PICCS	Malaysia	Singapore	France	Germany VwVws	EINECS
yes	yes	no	yes	no	no	yes	yes	yes	no	no	202-777-3
Australia	KECL	Bermuda		Lithuania	EC						
yes	yes	yes	no	no	no						

CAS# 1405-41-0

AICS	New Zealand-GHS	Russia	ENCS	Switzerland	Belgium	PICCS	Malaysia	Singapore	France	Germany VwVws	EINECS
yes	yes	no	yes	no	no	yes	no	no	no	no	215-778-9
Japan	Thailand	China	KECL	Latvia	Lithuania	EC					
yes	yes	yes	yes	no	no	no					

CAS# 7732-18-5

AICS	New Zealand	China	ENCS	Korea	PICCS	Malaysia	Denmark	EC	EINECS
yes	yes	yes	yes	yes	yes	yes	yes	yes	231-791-2

Advisory Agencies
CAS# 66-81-9

OECD	OSPAR	Australia Group	ICCA	IPCS	CICAD	WHO	UNEP	WGK	SIN
no	no	no	no	no	no	no	no	no	yes

CAS# 64-17-5

OECD	OSPAR	Australia Group	ICCA	IPCS	CICAD	WHO	UNEP	WGK
yes	yes	no	no	no	no	yes	no	no

CAS# 50-06-6

OECD	OSPAR	Australia Group	ICCA	IPCS	CICAD	WHO	UNEP	WGK	IARC
no	no	no	no	no	no	yes	no	no	yes

CAS# 298-46-4

OECD	OSPAR	Australia Group	ICCA	IPCS	CICAD	WHO	UNEP	WGK
yes	no	no	no	no	no	yes	no	no

CAS# 630-93-3

OECD	OSPAR	Australia Group	ICCA	IPCS	CICAD	WHO	UNEP	WGK
no	no	no	no	no	no	yes	no	no

Section 15 – Regulatory Information - continued

CAS# 99-66-1

OECD	OSPAR	Australia Group	ICCA	IPCS	CICAD	WHO	UNEP	WGK
no	no	no	no	no	no	yes	no	no

CAS# 1405-41-0

OECD	OSPAR	Australia Group	ICCA	IPCS	CICAD	WHO	UNEP	WGK
no	no	no	no	no	no	yes	no	no

CAS# 7732-18-5

OECD	OSPAR	Australia Group	ICCA	IPCS	CICAD	WHO	UNEP	WGK
yes	no	no	no	no	no	yes	no	no

Exposure Limits

CAS# 64-17-5

OEL-Alberta: 1000 ppm TWA; 1880 mg/m3 TWA
 OEL-Argentina: 1000 ppm TWA
 OEL-Australia: TWA 1000 ppm (1900 mg/m3) JAN 1993
 OEL-Austria: 1000 ppm MAK; 1900 mg/m3 MAK, 2000 ppm STEL (3 X 60 min); 3800 mg/m3 STEL (3 X 60 min)
 OEL-Belgium: TWA 1000 ppm; (1880 mg/m3) JAN 1993, 1000 ppm TWA; 1907 mg/m3 TWA
 OEL-Brazil: 780 ppm TWA; 1480 mg/m3 TWA
 OEL-British Columbia: 1000 ppm TWA
 OEL-Bulgaria: 1000 mg/m3 TWA
 OEL-California: 1000 ppm PEL; 1900 mg/m3 PEL
 OEL-Chile: 800 ppm TWA; 1500 mg/m3 TWA
 OEL-Colombia: 1000 ppm TWA
 OEL-Croatia: 1000 ppm MAC; 1900 mg/m3 MAC, 2000 ppm Ceiling; 3800 mg/m3 Ceiling, 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-Czech Republic: 3000 mg/m3 Ceiling, 1000 mg/m3 TWA
 OEL-Denmark: TWA 1000 ppm (1900 mg/m3) JAN 1993, 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-Egypt: TWA 1000 ppm; TWA 1880 mg/m3
 OEL-Estonia: 1000 ppm STEL; 1900 mg/m3 STEL, 500 ppm TWA; 1000 mg/m3 TWA
 OEL-Finland: TWA 1000 ppm (1900 mg/m3); STEL 1250 ppm (2400 mg/m3) JAN 1993
 OEL-France: TWA 1000 ppm (1900 mg/m3); STEL 5000 ppm JAN 1993
 OEL-Germany: TWA 1000 ppm (1900 mg/m3) JAN 1993
 OEL-Greece: 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-Hawaii: 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-Hong Kong: 1000 ppm TWA; 1880 mg/m3 TWA
 OEL-Hungary: TWA 1000 mg/m3; STEL 3000 mg/m3 JAN 1993
 OEL-Idaho: 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-India: 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-Indiana: 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-Indonesia: 1000 ppm NAB; 1880 mg/m3 NAB
 OEL-Ireland: 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-Israel: 1000 ppm TWA
 OEL-Korea: 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-Latvia: 1000 mg/m3 TWA
 OEL-Lithuania: 1000 ppm NRV; 1900 mg/m3 NRV, 1000 ppm TPRV; 1900 mg/m3 TPRV, 500 ppm IPRV; 1000 mg/m3 IPRV
 OEL-Malaysia: 1000 ppm TWA; 1880 mg/m3 TWA
 OEL-Manitoba: 1000 ppm TWA
 OEL-Mexico: 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-Michigan: 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-Minnesota: 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-New Brunswick: 1000 ppm TWA; 1880 mg/m3 TWA
 OEL-Newfoundland: 1000 ppm TWA
 OEL-New York: 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-New Zealand: 1000 ppm TWA; 1880 mg/m3 TWA
 OEL-Nicaragua: 1000 ppm TWA
 OEL-North Carolina: 1000 ppm TWA; 1900 mg/m3 TWA
 OEL-Northwest Territories: 1250 ppm STEL; 2355 mg/m3 STEL, 1000 ppm TWA; 1884 mg/m3 TWA
 OEL-Norway: 625 ppm STEL; 1187.5 mg/m3 STEL, 500 ppm TWA; 950 mg/m3 TWA

Section 15 – Regulatory Information - continued

OEL-Nova Scotia: 1000 ppm TWA
OEL-Nunavut: 1250 ppm STEL; 2355 mg/m3 STEL, 1000 ppm TWA; 1884 mg/m3 TWA
OEL-Ontario: 1000 ppm TWAEV; 1900 mg/m3 TWAEV
OEL-Oregon: 1000 ppm TWA; 1990 mg/m3 TWA
OEL-Peru: 1000 ppm TWA; 1884 mg/m3 TWA
OEL-Philippines: TWA 1000 ppm (1900 mg/m3) JAN 1993
OEL-Poland: TWA 1000 mg/m3 JAN 1993
OEL-Portugal: 1000 ppm TWA
OEL-Prince Edward Island: 1000 ppm TWA
OEL-Quebec: 1000 ppm TWAEV; 1880 mg/m3 TWAEV
OEL-Romania: 5000 ppm STEL; 9500 mg/m3 STEL, 1000 ppm TWA; 1900 mg/m3 TWA
OEL-Russia: STEL 1000 mg/m3 JAN 1993, 2000 mg/m3 STEL (vapor), 2000 mg/m3 STEL (vapor)
OEL-Saskatchewan: 1250 ppm STEL, 1000 ppm TWA
OEL-Singapore: 1000 ppm PEL; 1880 mg/m3 PEL
OEL-Slovak Republic: 1920 mg/m3 Ceiling, 500 ppm TWA; 960 mg/m3 TWA
OEL-Slovenia: 4000 ppm STEL; 7600 mg/m3 STEL, 1000 ppm TWA; 1900 mg/m3 TWA
OEL-South Africa: 1000 ppm TWA; 1900 mg/m3 TWA
OEL-Spain: 1000 ppm VLA-ED; 1910 mg/m3 VLA-ED, 1000 ppm TLV-TWA
OEL-Sweden: TWA 1000 ppm (1900 mg/m3) JAN 1993, 1000 ppm STV; 1900 mg/m3 STV, 500 ppm LLV; 1000 mg/m3 LLV
OEL-Switzerland: TWA 1000 ppm (1900 mg/m3) JAN 1993, 500 ppm MAK; 960 mg/m3 MAK, 1000 ppm STEL; 1920 mg/m3 STEL
OEL-Taiwan: 1000 ppm TWA; 1880 mg/m3 TWA
OEL-Tennessee: 1000 ppm TWA; 1900 mg/m3 TWA
OEL-Texas: 1000 ppb ESL; 1880 µg/m3 ESL - Long Term, 10000 ppb ESL; 18800 µg/m3 ESL - Short Term
OEL-Thailand: TWA 1000 ppm (1900 mg/m3) JAN 1993
OEL-Netherlands: TWA 1000 ppm (1900 mg/m3) JAN 1993
OEL-Turkey: TWA 1000 ppm (1900 mg/m3) JAN 1993
OEL-United Kingdom: TWA 1000 ppm (1900 mg/m3) JAN 1993, 3000 ppm STEL; 5760 mg/m3 STEL, 1000 ppm TWA; 1920 mg/m3 TWA
OEL-Venezuela: 1000 ppm TWA
OEL-Vermont: 1000 ppm TWA; 1900 mg/m3 TWA
OEL-Vietnam: 3000 mg/m3 STEL, 1000 mg/m3 TWA
OEL-Washington: 1250 ppm STEL, 1000 ppm TWA
OEL-Yukon: 1000 ppm STEL; 1900 mg/m3 STEL, 1000 ppm TWA; 1900 mg/m3 TWA
CAS# 66-81-9
OEL-DELAWARE: DRQ 100 lb
OEL-MASSACHUSETTS: RC - 0.1 mg/L; RQ 10 mg/kg
OEL-MICHIGAN: TRQ 1 lb
OEL-NEW JERSEY: TPQ SN 0574 100 lb
OEL-OHIO: TQ 100 lb (liquid or solution); 500 lb (solid)
OEL-NEW YORK: RQ 1 lb (air, acutely hazardous substance); 1 lb (land/water, acutely hazardous substance)
OEL-TEXAS: TPQ 100 lb; RQ 100 lb lower threshold; 10000 lb upper threshold
CAS# 630-93-3
OEL-CALIFORNIA: ADOA (POM) 100 lbs/yr
OEL-KENTUCKY: Significant Level 0.00000051 lbs/hr
OEL-MICHIGAN: TRQ 10 lb
OEL-NEW YORK: RQ 1 lb (air), 1 lb (land/water)
OEL-WISCONSIN: TQ 10 lb/yr Emissions From Stack Heights 25 Feet to Less Than 40 Feet; 23.8 lb/yr Emissions From Stack Heights 40 Feet to Less Than 75 Feet; 83.9 lb/yr Emissions From Stack Heights 75 Feet or Greater; 2.43 lb/yr Emissions From Stack Heights Less Than 25 Feet

European Union Directives

Seveso II Directive (96/82/EC), 67/548/EEC, 2006/15/EC, 98/24/EC, 304/2003, 76/769/EEC, 273/2004, 1277/2005, 2037/2000/EC, Directive 96/59/EC, Directive 79/117/EEC and Directive 91/414/EEC, 2000/479/EC (EPER), 2002/95/EC (RoHS), 2002/96/EC - WEEE, 2006/11/EC, Directive 98/83/EC - **No information found**

CAS# 66-81-9

793/93/EEC	1907/2006 – REACH	EU - CLP 1272/2008) - Annex VI - Table 3.1	(67/548/EEC) - Annex I	76/768/EEC	EU - Marketing and Use Directive (76/769/EEC)
yes	yes	yes	deleted	yes	yes

Section 15 – Regulatory Information - continued

CAS# 64-17-5

793/93/EEC	1907/2006 – REACH	67/548/EEC
yes	yes	yes

CAS# 50-06-6

793/93/EEC	1907/2006 – REACH
yes	yes

CAS# 298-46-4

793/93/EEC	1907/2006 – REACH	HPV-LPV Chemicals
yes	yes	yes

CAS# 630-93-3

793/93/EEC	1907/2006 – REACH
no	yes

CAS# 99-66-1

793/93/EEC	1907/2006 – REACH	HPV-LPV Chemicals
no	yes	yes

CAS# 1405-41-0

793/93/EEC	1907/2006 – REACH
no	yes

CAS# 7732-18-5

793/93/EEC	1907/2006 – REACH
yes	yes

1999/45/EC - European Labeling in Accordance with EC Directives,
 Hazard Symbols: Not available
 Risk Phrases: Not available
 Safety Phrases: S 24/25 Avoid contact with skin and eyes

United Nations List

CAS# 50-06-6 INCB - Schedule IV Substances
 UN, UN/FAO, UNEP - **No information found**

Canada Federal/Provincial Government

CAS# 66-81-9 - Saskatchewan - Dangerous Goods - Acute Hazardous Substances
 CAS# 64-17-5 Alberta, British Columbia, Manitoba A4 - Not Classifiable as a Human Carcinogen, New Brunswick Not Classifiable as a Human Carcinogen, Newfoundland, Northwest Territories, Nova Scotia A4 - Not Classifiable as a Human Carcinogen, Nunavut, Ontario - Air Pollution - Local Air Quality - Guidelines Ethanol 19000 µg/m³ 30 minute Guideline (odour); 19000 µg/m³ 1 hour Guideline (odour, TBU), Ontario - Ambient Air Quality Criteria (AAQCs) Ethanol 19000 µg/m³ 1 hour average (odour, TBU), Prince Edward Island, Quebec, Saskatchewan - Dangerous Goods - Industrial Hazardous Substances Ethyl alcohol Present, Yukon (see section 8 for OEL values)
 CAS# 50-06-6 - Controlled Drugs - Schedule IV

CAS# 66-81-9- listed in the Canadian Provincial Government of Saskatchewan

CEPA	NPRI	DSL	NDSL	CEPA	DWQ	Council of Ministers of the Environment	Controlled Drugs and Substances	WHMIS
no	no	no	no	no	no	no	no	no

CAS# 64-17-5

CEPA	NPRI	DSL	NDSL	CEPA	DWQ	Council of Ministers of the Environment	Controlled Drugs and Substances	WHMIS
yes	no	yes	no	no	no	no	no	yes

CAS# 50-06-6

CEPA	NPRI	DSL	NDSL	CEPA	DWQ	Council of Ministers of the Environment	Controlled Drugs and Substances	WHMIS
no	no	yes	no	no	no	no	Yes, Schedule IV	no

Section 15 – Regulatory Information - continued

CAS# 298-46-4 Substances Regulated Under F&DA That Were In Commerce Between 1/1/84 and 12/31/86

CEPA	NPRI	DSL	NDSL	CEPA	DWQ	Council of Ministers of the Environment	Controlled Drugs and Substances	WHMIS
no	no	yes	no	no	no	no	no	no

CAS# 630-93-3

CEPA	NPRI	DSL	NDSL	CEPA	DWQ	Council of Ministers of the Environment	Controlled Drugs and Substances	WHMIS
no	no	no	yes	no	no	no	no	no

CAS# 99-66-1 Substances Regulated Under F&DA That Were In Commerce Between 1/1/84 and 12/31/86

CEPA	NPRI	DSL	NDSL	CEPA	DWQ	Council of Ministers of the Environment	Controlled Drugs and Substances	WHMIS
no	no	yes	no	no	no	no	no	no

CAS# 1405-41-0 Substances Regulated Under F&DA That Were In Commerce Between 1/1/84 and 12/31/86

CEPA	NPRI	DSL	NDSL	CEPA	DWQ	Council of Ministers of the Environment	Controlled Drugs and Substances	WHMIS
no	no	yes	no	no	no	no	no	no

CAS#7732-18-5

CEPA	NPRI	DSL	NDSL	CEPA	DWQ	Council of Ministers of the Environment	Controlled Drugs and Substances	WHMIS
no	no	yes	no	no	no	no	no	no

WHMIS:

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

Other

This MSDS has been prepared in accordance with the ANSI Z400.1 format. Every effort has been made to adhere to the hazard criteria and content requirements of the US OSHA Hazard Communication Standard, European Communities Safety Data Sheets Directive, Canadian Controlled Products Regulations, UK Chemical Hazard Information and Packaging Regulations, and UN Globally Harmonized System of Classification and Labeling of Chemicals

Section 16 – Other Information

Color information has been updated

Revision: 4

Date prepared: 11/30/09

Acronym keys
1277/2005 – Narcotics

1907/2006 – REACH - Registration, Evaluation and Authorization of Chemicals

2000/479/EC (EPER) -European Pollutant Emission Register

2002/95/EC (RoHS) - Hazardous Substances Restricted or Prohibited in Electrical Equipment

2002/96/EC (WEEE) - Waste Electrical and Electronic Equipment

2006/11/EC - Water Pollution Directive

2006/15/EC, 98/24/EC - Occupational Exposure Directives

2037/2000/EC - Ozone Depleting Substances Regulation

21 CFR-IVD –Code of Federal Regulations, In-vitro Diagnostics

273/2004 - Export Requirements and Drug Precursors

304/2003 - Export and Import Restrictions

67/548/EEC Dangerous Substances Directive

76/769/EEC - Marketing Restrictions Directive

793/93/EEC - Existing Substance Regulation

ACGIH – American Conference of Governmental Industrial Hygienists

ADN - European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR - The European Agreement concerning the International

Carriage of Dangerous Goods by Road

AICS (Australia Inventory of Chemical Substances)

AIHA – American Industrial Hygiene Association

ATHS - Air Toxics Hot Spots Act

Australia Group – Export Control List - European Commission for Chemical Weapons Precursors

CAA - Clean Air Act of 1990

CCR - California Code of Regulations

CEPA - Canadian Environmental Protection Act, 1999,

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act of 1980

CICADS - International Chemical Safety Documents

CWA - Clean Water Act

CWC - Chemical Weapons Convention

DEA - Drug Enforcement Administration

Department of Homeland Security - Chemical Facility Anti-Terrorism Standards
Directive 79/117/EEC and Directive 91/414/EEC - Plant Protection Products

Directive 96/59/EC - Disposal of Polychlorinated Biphenyls and Polychlorinated Terphenyls

Directive 98/83/EC - Water Quality - Water Intended for Human

Consumption
DSL - Domestic Substances List
DWQ - Drinking Water Quality
EAR - Export Administration Regulations
ENCS - Japan Existing and New Chemical Substances
EPICRA - Emergency Planning and Community Right-to-Know Act
FDA - Food and Drug Administration
FIFRA - Federal Insecticide, Fungicide and Rodenticide Act
HAPs - Hazardous Air Pollutants (**CAA**)
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
ICAO - International Civil Aviation Organization
ICCA - International Council of Chemical Associations
IMDG - International Maritime Dangerous Goods Code
IMO - International Maritime Organization
INCB - International Narcotics Control Board
IPCS - International Program on Chemical Safety
ITAR - International Traffic in Arms Regulations
KECL - Korea - Existing and Evaluated Chemical Substances
NDSL - Non-Domestic Substances List
NIOSH - national institute for occupational safety and health
NPRI - National Pollutant Release Inventory
NTP - National Toxicology Program
OECD - The Organisation for Economic Co-Operation and Development
OEL - Occupational Exposure Level
OSHA - occupational safety and health
OSPAR - Oslo/Paris Convention of September 22, 1992 - List of Chemicals for Priority Action
OTIF - Intergovernmental Organization for International Carriage by Rail
PICCS (Philippines Inventory of Chemicals and Chemical Substances)

POP - Persistent Organic Pollutants
RCRA - Resource Conservation & Recovery Act
REL - recommended exposure limits
RID - The Intergovernmental Organization for International Carriage by Rail
SARA - Superfund Amendments and Reauthorization Act of 1986
SCAQMD - Toxic Air Contaminants List
Schedule I, IV - Controlled Substances
SDWA (Safe Drinking Water Act)
Seveso II Directive (96/82/EC) - Qualifying Quantities for Safety Report Requirements
SNUR - Significant New Use Rule (TSCA)
State Department (Munitions List Category XIV - Toxicological, Biological, Chemical Agents)
STEL - short term exposure limit
TDG - Transport Canada
 Transportation of Dangerous Goods Act, 2001
Title 22 - Health and Safety Code, Hazardous Waste Codes
Title 8 - Industrial Relations, Director's List of Hazardous Substances
TLV - threshold Limit Values
TSCA - Toxic Substance Control Act
TWA - Time Weighted Average
UN - Convention on Marking Plastic Explosives
UN/FAO - Chemicals Subject to Prior Informed Consent (PIC)
UNECE - United Nations Economic Commission for Europe
UNEP - United Nations Environment Program
US DOT - United States Department of Transportation
USDA - United States Department of Agriculture
WEEL - Workplace Environmental Exposure Level
WGK - Wassergefährdungsklasse or WHC - Water Hazard Class
WHMIS - Classifications of Substances
WHO - World Health Organization

This MSDS is intended for review and guidance in the receipt, storage, handling, use and disposal of product purchased from Thermo Fisher Scientific, and for no other purpose. Use this product only as directed and in accordance with applicable instructions and warnings provided with the product. Please consult your institution's policies regarding use of this product. If you have obtained this MSDS other than in connection with the supply of this product from Thermo Fisher Scientific, this MSDS should be consulted for general information only, and should not be relied upon for any purpose. As with the use of all hazardous materials, you should in all instances follow the guidance of the MSDS provided or available with the specific product purchased.

End of MSDS