

## Material Safety Data Sheet

### **Section 1 –Product and Company Identification**

MSDS Name	<b>MAS® UA Control – Liquid Assayed Urinalysis Control</b>
Catalog Number	UAB-115, UAB-160, UAB-215, UAB-260, UAB-MP, UAB-S15
Description	Liquid Assayed Urinalysis Control
Synonyms	UAB-115 MAS® UA Liquid Urinalysis Control Level 1 (6 x 15mL) UAB-160 MAS® UA Liquid Urinalysis Control Level 1 (4 x 60mL) UAB-215 MAS® UA Liquid Urinalysis Control Level 2 (6 x 15mL) UAB-260 MAS® UA Liquid Urinalysis Control Level 2 (4 x 60mL) UAB-MP MAS® UA Liquid Urinalysis Control multipack (6 x 15mL) UAB-S15 MAS® UA Liquid Urinalysis Control sample pack (2x15 mL)
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 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**

<b>CAS #</b>	<b>Component Name</b>	<b>Content</b>	<b>EINECS/ELINCS</b>
7632-00-0	Sodium nitrite	0.003– 0.006%	231-555-9
7732-18-5	Water	24.9 – 34.9%	231-791-2
N/A	Human urine	65– 75%	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

### **Section 5 – Fire Fighting Measures- continued**

Protection of Firefighters	Minimum protection for all firefighters should include a self-containing breathing apparatus (SCBA) and 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**

#### **Chemical Name – Sodium Nitrite**

OSHA PEL					ACGIH TLV			AIHA		NIOSH REL			
Ceiling	TWA	STEL	Final	Vacated	Ceiling	TWA	STEL	WEEL	OEL	Ceiling	TWA	STEL	IDLH
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													

#### **Chemical Name – Human urine**

OSHA PEL					ACGIH TLV			AIHA		NIOSH REL			
Ceiling	TWA	STEL	Final	Vacated	Ceiling	TWA	STEL	WEEL	OEL	Ceiling	TWA	STEL	IDLH
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# 7632-00-0	Oral, rat: LD50= 157.9 mg/kg Oral, rabbit: LD50= 186 mg/kg Inhalation, rat: LC50- 4 h - 5.5 mg/m3 Intravenous, rat: LD50 - 65 mg/kg Oral, Rat: LD50= 85 mg/kg Subcutaneous, mouse: LDLo=150 mg/kg	Oral, mouse: LD50 = 175 mg/kg Oral, Chicken: LD50= 28.944 mg/kg Subcutaneous, rat: LD50= 96.6 mg/kg Intraperitoneal, mouse: LD50= 158 mg/kg Subcutaneous, rabbit: LDLo=60 mg/kg Intravenous, rabbit: LDLo=80 mg/kg
CAS# 7732-18-5	Oral, rat: LD50 =998.21 mg/cm <sup>3</sup> @20°C	

### Repeated dose effect (NOAEL, LOEL)

CAS# 7632-00-0	Oral, rat: TDLo=180 mg/kg/8D (intermittent) Inhalation, rat: TCLo=300 ug/m3/4H/30D (intermittent) Intraperitoneal, rat: TDLo=960 mg/kg/30D (intermittent) Oral, mouse: TDLo=700 mg/kg/1W (continuous) Subcutaneous, pig: TDLo=1890 mg/kg/90D
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### Irritation

prolonged exposure may cause irritation

### Corrosivity

No information found

### Sensitization (inhalation, dermal, ocular)

prolonged exposure may cause dermal irritation

### CAS# 7632-00-0 Eyes - rabbit - Mild eye irritation - 24 h

Genotoxic properties are not known

CAS# 7632-00-0	Oncorhynchus mykiss (rainbow trout): LC50 = 0.092 mg/l - 96 h mortality Oncorhynchus mykiss (rainbow trout): NOEC = 0.54 mg/l - 96 h Daphnia magna (Water flea): EC = 5012.5 mg/l - 48 h
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### Teratogenicity

Teratogenic properties are not known

### Reproductive system effect

CAS# 7632-00-0	Oral, rat: TDLo=660 mg/kg female 1-22 day(s) after conception Intraperitoneal, rat: TDLo=400 mg/kg female 10-19 day(s) after conception Oral, mouse: TDLo=280 mg/kg female 1-14 day(s) after conception Subcutaneous, pig: TDLo=1890 mg/kg female 15-105 day(s) after conception
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### **Section 11 – Toxicological Information - continued**

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# 7632-00-0 Not listed as a carcinogen by ACGIH, NIOSH, NTP, OSHA, or CA Prop 65, IARC: 2A - Group 2A:

Probably carcinogenic to humans (Sodium nitrite),

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

Mutagenicity mutagenic properties are not known

CAS# 7632-00-0 *Salmonella typhimurium*, Mutation in microorganisms=250 ug/plate

*Escherichia coli*, Mutation in microorganisms=50 mmol/L

*Escherichia coli*, DNA repair=625 ug/well

Target organ effect Ingestion of significant amount may cause nausea and vomiting

Epidemiology *No information found*

NOES Hazard Codes (NOHS, NOES)

RTECS

CAS# 7632-00-0 69230

RA1225000

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 *No information found*

Bioaccumulation/Accumulation *No information found*

Mobility in Environmental media Soluble in water

Environmental Not classified as harmful to the environment

Other Adverse Effects *No information found*

### **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*

**Section 15 – Regulatory Information - continued**

CAS# 7632-00-0

TSCA 8(b)	SARA 302	SARA 313	CERCLA	TSCA 8(d)	TSCA 12(b)	FIFRA	CAA- SNAP	DEA
yes	no	1.0 % de minimis concentration	100 lb final RQ; 45.4 kg final RQ	no	no	List 3 - Unknown Toxicity	no	no
CWA	RCRA 261.33	Coast Guard	EPA	CWC	SARA 311/312	EPICRA	FDA	
100 lb RQ	no	Group No. 5 (solution)	Indicators 2,4; ICCA Confirmed Commitment	no	yes	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

**US State**
**State Right to Know**

CAS# 7632-00-0 can be found on the following state Right-to-Know lists – California, Delaware, Louisiana, Massachusetts, Michigan, New Jersey, Pennsylvania, Texas

**California**

Prop 65, Title 8 CCR, Title 22 CCR, ATHS, Occupational Exposure Limits, Ozone Depleting Compounds, Precursor Chemicals, SCAQMD, California -No Significant Risk Level - **No information found**

None of the chemicals are on Prop 65 lists

**California Prop 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other Reproductive defects

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

CAS# 7632-00-0

AICS	New Zealand-GHS	Russia	ENCS	Switzerland	Belgium	PICCS	Malaysia	Singapore	EINECS	Luxembourg
yes	0.2 % MAC HSNO Approval: HSR001286	0.1 mg/m <sup>3</sup> MAC	(1)-483	no	no	yes	5.0 %	<5%,	231-555-9	no
India	Africa	Australia	Czech Republic	Indonesia	Japan	China	Taiwan	Thailand	Austria	Italy
no	0.2 % MAC (Rust inhibitor)	>=1%<5% : Xn ; R22; C>=5% : T ; R25	no	no	YES	UN1500 0.2 % MA	yes	no	no	no
Malta	Netherlands	UK	Philippines	KE CL	Bermuda	Latvia	Estonia	Lithuania	Hungary	EC
0.2 % MAC	no	1Z	no	KE-31546	no	no	yes	0.1 mg/m <sup>3</sup> NRV	no	no
Chile	ASEAN	Hong Kong	Korea	Denmark	Gibraltar	France	Check	Germany VwVws		
yes	0.2 % MAC	R-8, R-25 S-16/17, S-38	>=1.0 % (by weight)	yes	E250	no	no	Number 161, hazard class 2 - hazard to waters		

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

## Section 15 – Regulatory Information - continued

### Advisory Agencies

CAS# 7632-00-0

OECD	OSPAR	Australia Group	ICCA	IPCS	CICAD	WHO	GASL	UNEP	WGK
April 2007	yes	yes	yes	yes	no	yes	0.1 % Threshold Limit	no	no
NIOSH	NTP								
Group III pesticide	yes								

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 – none listed

### 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# 7632-00-0

793/93/EEC	1907/2006 – REACH	HPV-LPV Chemicals	1272/2008) - Annex VI - Table 3.1 -	(76/768/EEC) - Annex III Part 1 - Maximum	Ecolabel (1980/2000) - Detergent
REPEALED)	November 30, 2010	High Production Volume Chemical	T; R:25: 5%<=C Xn; R:22: 1%<=C<5%	0.2 % MAC	10000 toxicity safety factor
Additives (1333/2008/EC) - Annex III -	Additives (2008/84/EC) - Specific Purity	Plastic Materials in Contact with Food (2002/72/EC)	Biocides (1451/2007) - Existing Active Substances	Detergents Regulation (648/2004)	
E 250	E 250	0.6 mg/kg SML	yes	0.2% by weight	

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# 7632-00-0 on the list of Health Canada, Saskatchewan - Dangerous Goods

CEPA	NPRI	DSL	NDSL	DWQ	Council of Ministers of the Environment	Controlled Drugs and Substances	WHMIS
yes	no	yes	no	no	no	no	1 %

CAS#7732-18-5

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

## Section 15 – Regulatory Information - continued

### 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: 2

Date prepared: 12/21/09

### Acronym keys

1277/2005 – Narcotics	Human Consumption
1907/2006 – REACH - Registration, Evaluation and Authorization of Chemicals	<b>DSL</b> - Domestic Substances List
2000/479/EC (EPCR) -European Pollutant Emission Register	<b>DWQ</b> - Drinking Water Quality
2002/95/EC (RoHS) - Hazardous Substances Restricted or Prohibited in Electrical Equipment	<b>EAR</b> - Export Administration Regulations
2002/96/EC (WEEE) - Waste Electrical and Electronic Equipment	<b>ENCS</b> - Japan Existing and New Chemical Substances
2006/11/EC - Water Pollution Directive	<b>EPICRA</b> - Emergency Planning and Community Right-to-Know Act
2006/15/EC, 98/24/EC - Occupational Exposure Directives	<b>FDA</b> - Food and Drug Administration
2037/2000/EC - Ozone Depleting Substances Regulation	<b>FIFRA</b> - Federal Insecticide, Fungicide and Rodenticide Act
21 CFR-IVD –Code of Federal Regulations, In-vitro Diagnostics	<b>HAPs</b> - Hazardous Air Pollutants ( <b>CAA</b> )
273/2004 - Export Requirements and Drug Precursors	<b>IARC</b> - International Agency for Research on Cancer
304/2003 - Export and Import Restrictions	<b>IATA</b> - International Air Transport Association
67/548/EEC Dangerous Substances Directive	<b>ICAO</b> - International Civil Aviation Organization
76/769/EEC - Marketing Restrictions Directive	<b>ICCA</b> - International Council of Chemical Associations
793/93/EEC - Existing Substance Regulation	<b>IMDG</b> - International Maritime Dangerous Goods Code
<b>ACGIH</b> – American Conference of Governmental Industrial Hygienists	<b>IMO</b> - International Maritime Organization
<b>ADN</b> - European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways	<b>INCIB</b> - International Narcotics Control Board
<b>ADR</b> - The European Agreement concerning the International Carriage of Dangerous Goods by Road	<b>IPCS</b> - International Program on Chemical Safety
<b>AICS</b> (Australia Inventory of Chemical Substances)	<b>ITAR</b> - International Traffic in Arms Regulations
<b>AIHA</b> – American Industrial Hygiene Association	<b>KECL</b> - Korea - Existing and Evaluated Chemical Substances
<b>ATHS</b> - Air Toxics Hot Spots Act	<b>NDSL</b> - Non-Domestic Substances List
<b>Australia Group</b> – Export Control List - European Commission for Chemical Weapons Precursors	<b>NIOSH</b> – national institute for occupational safety and health
<b>CAA</b> - Clean Air Act of 1990	<b>NPRI</b> - National Pollutant Release Inventory
<b>CCR</b> - California Code of Regulations	<b>NTP</b> - National Toxicology Program
<b>CEPA</b> - Canadian Environmental Protection Act, 1999,	<b>OECD</b> - The Organisation for Economic Co-Operation and Development
<b>CERCLA</b> - Comprehensive Environmental Response, Compensation, and Liability Act of 1980	<b>OEL</b> - Occupational Exposure Level
<b>CICADs</b> - International Chemical Safety Documents	<b>OSHA</b> - occupational safety and health
<b>CWA</b> - Clean Water Act	<b>OSPAR</b> - Oslo/Paris Convention of September 22, 1992 - List of Chemicals for Priority Action
<b>CWC</b> - Chemical Weapons Convention	<b>OTIF</b> - Intergovernmental Organization for International Carriage by Rail
<b>DEA</b> - Drug Enforcement Administration	<b>PICCS</b> (Philippines Inventory of Chemicals and Chemical Substances)
<b>Department of Homeland Security - Chemical Facility Anti-Terrorism Standards</b>	<b>POP</b> - Persistent Organic Pollutants
<b>Directive 79/117/EEC and Directive 91/414/EEC</b> - Plant Protection Products	<b>RCRA</b> - Resource Conservation & Recovery Act
<b>Directive 96/59/EC</b> - Disposal of Polychlorinated Biphenyls and Polychlorinated Terphenyls	<b>REL</b> - recommended exposure limits
<b>Directive 98/83/EC</b> - Water Quality - Water Intended for	<b>RID</b> - The Intergovernmental Organization for International Carriage by Rail

**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*