



SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product Identifier(s)	BR902, BR902CN, BR904, BR904CN, BR904B, BR916, BR916CN, BR932	Revision No.	5
Product Name	BR9 Gun Bore Cleaner	Revision Date	January 19, 2016
Other Means of Identification	None	Print Date	January 19, 2016
Identified Uses of the Product	Copper remover. Removes copper, lead, powder and plastic foulings out of gun bores.		
Restrictions on Use	No restrictions identified		

SECTION 2 - HAZARDS IDENTIFICATION

GHS/CLP (1272/2008) Classification of the Substance or Mixture

HEALTH HAZARDS					
Acute Tox. Oral	4	Skin Irritation	1B	Skin Sensitization	1
Acute Tox. Skin	4	Eye Irritation	2A	Mutagenicity	<input type="checkbox"/>
Acute Tox. Inhalation	<input type="checkbox"/>	Resp. Sensitization	1	Carcinogenicity	<input type="checkbox"/>
				Tox. To Reproduction	<input type="checkbox"/>
				Aspiration Hazard	1
				STOT SE	3
				STOT RE	<input type="checkbox"/>

PHYSICAL HAZARDS					
Unstable Explosive	<input type="checkbox"/>	Oxidizing Gas	<input type="checkbox"/>	Flammable Solid	<input type="checkbox"/>
Explosive	<input type="checkbox"/>	Gas Under Pressure	<input type="checkbox"/>	Self-Reacting Substance	<input type="checkbox"/>
Flammable Gas	<input type="checkbox"/>	Refrigerated Liq. Gas	<input type="checkbox"/>	Pyrophoric Liquid	<input type="checkbox"/>
Aerosol	<input type="checkbox"/>	Flammable Liquid	1	Self-Heating Substance	<input type="checkbox"/>
				Pyrophoric Solid	<input type="checkbox"/>
				Emits Flammable Gas	<input type="checkbox"/>
				Oxidizing Liquid	<input type="checkbox"/>
				Oxidizing Solid	<input type="checkbox"/>
				Organic Peroxide	<input type="checkbox"/>
				Corrosive to Metal	<input type="checkbox"/>

ENVIRONMENTAL HAZARDS					
Aquatic Acute	1	Aquatic Chronic	1	Ozone Depleting	<input type="checkbox"/>

GHS/CLP (1272/2008) Label Elements

Hazard Pictograms



Signal Word

DANGER

Hazard Statements

Highly flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Very toxic to aquatic life with long lasting effects.

Precautionary Statements

General

Keep out of reach of children.

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Prevention	<i>Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bon container and receiving equipment. Use explosive proof equipment and non-sparking tools. Take precautionary measures against static discharge. Do not breath fumes. Wash hands thoroughly after handling. Avoid release to the environment.</i>
Response	<i>IF SWALLOWED: Immediately call a poison center or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN: Remove contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Seek medical attention immediately.</i>
Storage	<i>Store in a well-ventilated place. Keep cool. Store locked up.</i>
Disposal	<i>Dispose of container and contents in an environmentally safe manner.</i>

Other Hazards Which Do Not Result In Classification

Hazards *Not Applicable*

Other Classifications

HMIS III Classification *Health: 3 Flammability: 3 Physical Hazard: 0*
NFPA Classification *Health: 3 Flammability: 3 Reactivity: 0 Special Hazard: None*

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

ID	INGREDIENT	CAS NUMBER	EINECS	INDEX NUMBER	% WT
1	<i>Kerosene</i>	<i>0008008-20-6</i>	<i>232-366-4</i>	<i>649-404-00-4</i>	<i>15 - 40</i>
2	<i>Ethyl Alcohol</i>	<i>0000064-17-5</i>	<i>200-578-6</i>	<i>603-002-00-5</i>	<i>15 - 40</i>
3	<i>Oleic Acid</i>	<i>0000112-80-1</i>	<i>204-007-1</i>		
4	<i>Amyl Acetate</i>	<i>0000628-63-7</i>	<i>211-047-3</i>	<i>607-130-00-2</i>	<i>5 - 10</i>
5	<i>Ammonium Hydroxide</i>	<i>0001336-21-6</i>	<i>215-647-6</i>	<i>007-001-01-2</i>	<i>3 - 7</i>
6	<i>Tetraethylenepentamine</i>	<i>0000112-57-2</i>	<i>203-986-2</i>	<i>612-060-00-0</i>	<i>1 - 5</i>
7	<i>Ammonium Persulfate</i>	<i>0007727-54-0</i>	<i>231-786-5</i>	<i>016-060-00-6</i>	<i>0.1 - 1</i>

SECTION 4 - FIRST-AID MEASURES

Description of First-Aid Measures

Eye Contact	<i>Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Seek medical attention immediately.</i>
Skin Contact	<i>Remove with soap and water, rinsing and repeating for 15 minutes. Remove contaminated clothing.</i>
Ingestion	<i>Immediately call a poison center or physician. Rinse mouth. Do NOT induce vomiting.</i>
Inhalation	<i>Remove victim to fresh air and keep at rest in a position comfortable for breathing.</i>
First-Aid Responder Protection	<i>Wear adequate personal protective equipment based on the nature and severity of the emergency.</i>

Most Important Symptoms and Effects, Both Acute and Delayed

Eye Contact	<i>Liquid contact may damage the eyes, causing pain along with severe eye irritation.</i>
Skin Contact	<i>Causes skin irritation and burns. Repeated exposure may cause skin dryness or cracking.</i>
Ingestion	<i>May be fatal if swallowed and enters airways.</i>
Inhalation	<i>May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.</i>

Indication of Immediate Medical Attention and Special Treatment

Notes to Physician	<i>Treat symptomatically.</i>
Specific Treatments/Antidotes	<i>Details on specific treatments and/or antidotes are not available.</i>
Immediate Medical Attention	<i>No information available.</i>

SECTION 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Extinguishing Media	<i>Water, CO2, dry chemical, or universal aqueous film forming foam</i>
Unsuitable Media	<i>Water jet</i>

Specific Hazards Arising from the Chemical or Mixture

Decomposition Products	<i>Decomposition products may include oxides of carbon, nitrogen and/or sulfur as well as smoke, and/or vapors.</i>
Hazards from the Product	<i>Contents extremely flammable. In a fire or if heated, a pressure increase will occur which may result in the container bursting. Vapors heavier than air may spread along the ground and travel to an ignition source.</i>

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Mechanical Impact Sensitivity *Probably not sensitive as material is stable.*
Static Discharge Sensitivity *Vapors within the flammable limits may be ignited by a static discharge of sufficient energy.*

Special Protection Actions for Fire-Fighters

Protective Actions *Use water spray to cool fire exposed containers, as contents may rupture from heat developed pressure.*
Protective Equipment *Firemen should wear self-contained breathing apparatus with full face-piece operated in positive pressure mode.*

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

For Non-Emergency Personnel *No action shall be taken involving any personnel without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spill. Remove ignition sources and provide adequate ventilation only if it is safe to do so.*
For Emergency Responders *Use personal protection as recommended in Section 8. Observe precautions provided for non-emergency personnel above.*

Environmental Precautions

Precautions *Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.*

Methods and Materials for Containment and Cleaning up

Containment Procedures *Released content may be contained with oil/solvent absorbent pads, booms, and/or absorbents.*
Cleanup Procedures *Avoid breathing vapors and ventilate the area well. Remove sources of ignition and use non-sparking equipment. Soak up material with inert absorbent and place in safety containers for proper disposal.*
Other Information *The North American Emergency Response Guidebook, the Australian Dangerous Goods-Initial Emergency Response Guide (SAA/SNZ HB 76), or similar resources providing emergency response information for dealing with accidents, spills, leaks, and/or fires involving dangerous goods.*
Prohibited Materials *Combustible absorbent material such as sawdust, use of equipment that may cause sparking.*

SECTION 7 - HANDLING AND STORAGE

Precautions for Safe Handling

General Handling Precautions *KEEP OUT OF THE REACH OF CHILDREN.*
Hygiene Recommendations *Do not eat, drink or smoke when using this product. Wash hands thoroughly after use. Remove contaminated clothing and protective equipment before entering eating or smoking areas.*

Conditions for Safe Storage Including And Incompatibilities

Storage Requirements *In the United States, storage of flammable materials should conform to NFPA 30 Flammable and Combustible Liquid. Outside the United States conformance to local and/or federal codes should be observed. Keep containers tightly closed and stored in a well-ventilated place. Keep away from sources of ignition.*
Empty containers retain residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Do not attempt to clean since residue is difficult to remove. Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.
Incompatibilities *Segregate storage away from materials indicated in Section 10.*

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Occupational Exposure Limits

ID	AUSTRALIA TWA	ALBERTA OEL	CANADA		QUEBEC TWA	GERMANY MAK	JAPAN OEL	MEXICO MPEL-PTA	UNITED KINGDOM WEL	OSHA PEL	UNITED STATES		ACGIH TLV
			BC TWA	ONTARIO TWA/EV							NIOSH REL	NIOSH IDLH	
1			200 mg/m3	200 mg/m3									
2	1000 ppm	1000 ppm	1000 ppm	1000 ppm	1000 ppm	960 mg/m3		1000 ppm	1000 ppm	1000 ppm	3300 ppm	1000 ppm	1000 ppm
4	50 ppm	100 ppm	50 ppm	50 ppm	50 ppm	270 mg/m3	50 ppm	100 ppm	50 ppm	100 ppm	1000 ppm	100 ppm	
5										35 ppm	300 ppm		25 ppm

Biological Exposure Indices

ID	DETERMINANT	SAMPLING TIME	BEI	NOTATION
	None established			

Appropriate Engineering Controls

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Engineering Measures

Use only with adequate ventilation. General ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Local exhaust ventilation or an enclosed handling system may be necessary to control air contamination below that of the lowest OEL from the table above.

Individual Protection Measures

Hygiene Considerations

Avoid breathing vapors and contact with the skin and eyes. Always replace overcap when not in use. Keep out the reach of children. Wash hands after use.

Thermal Hazards

This product does not present a thermal hazard.

Respiratory Protection

An approved respirator with an organic vapor cartridge may be permissible under certain circumstances where airborne concentrations are expected to exceed occupational exposure limits. If respirators are needed, in the United States compliance with OSHA standard 29 CFR 1910.134 is necessary.

Skin Protection

For brief contact, no precautions other than clean body-covering clothing should be needed. When prolonged or repeated contact could occur, use protective clothing impervious to the ingredients listed in Section 2.

Eye/Face Protection

Safety glasses with side shields are recommended as a minimum for any type of industrial chemical handling. Where eye contact with this material could occur, chemical splash proof goggles are recommended.

Other Protective Equipment

Safety showers and eye-wash stations should be available in the workplace near where the material will be used.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	> 47.0 °C (116.6 °F)	Melting / Freezing Point	> -114.2 °C (-173.5 °F)
Flash Point	> 12.8 °C (55.0 °F)	Decomposition Temperature	Not Available
Explosive Limits	0.70% - 19.00%	Autoignition Temperature	210.0 °C (410.0 °F)
Flammability	Class IB Liquid	Relative Density (H2O = 1)	0.852 g/cc
Molecular Weight	Not Available	Weight	7.100 lbs/gal
Vapor Pressure	248.35 mm Hg	pH	Not Available
Vapor Density	9.700 g/cc Maximum	Evaporation Rate (nBAC = 1)	Not Available
Physical State	Liquid	Partition Coefficient	Not Available
Viscosity	4.2 - 4.8 cP (mpa.s)	Refractive Index	Not Available
Odor / Odor Threshold	Distinct	Heat of Combustion	Not Available
Appearance / Color	Clear light to dark amber	Water Solubility	Not Available
Percent Volatile	71% Wt (73% Vol) Max	VOC Content	4.569 lbs/gal (547.393 g/L)
Percent VOC	65% Wt (68% Vol) Max	HAP Content	None
Solids/Non Volatile Content	30% Wt (28% Vol) Max	Maximum Incremental Reactivity	1.08 g O3/g

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	No specific test data related to reactivity is available for this product or its ingredients.
Chemical Stability	This product is stable.
Hazardous Reactions	Under normal conditions of storage and use, hazardous reactions are not expected to occur.
Conditions to Avoid	Keep away from heat, sparks, flame, and red hot metal.
Material Incompatibility	Acids, Alkali Metals, Bases, Dimethyl Sulfate, Halogens, Hydrogen Peroxide, Perchloric and Permonosulfuric Acids, Potassium tert-Butoxide, Strong Reducing Agents
Decomposition Products	Oxides of carbon, nitrogen and/or sulfur may be formed depending on fire conditions.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity

ID	ORAL LD50		DERMAL LD50		INHALATION LC50		
	VALUE	SPECIES	VALUE	SPECIES	VALUE	TIME	SPECIES
1	>5000 mg/kg	rat	>2000 mg/kg	rabbit	>5.28 mg/L	4h	rat
2	7060 mg/kg	rat	>15800 mg/kg	rabbit	>32380 ppm	4h	rat
3	25000 mg/kg	rat	>3000 mg/kg	guinea pig	—	—	—
4	6500 mg/kg	rat	—	—	>3000 ppm	6h	rat
5	350 mg/kg	rat	—	—	3670 ppm	4h	rat
6	3990 mg/kg	rat	1260 mg/kg	rabbit	>150 mg/m3	4h	rat
7	689 mg/kg	rat	10000 mg/kg	rabbit	520 mg/L	1h	rat

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Skin Corrosion/Irritation	<i>Ammonium Hydroxide, Tetraethylenepentamine causes severe skin burns. Ammonium Persulfate causes skin irritation.</i>
Eye Damage/Irritation	<i>Ammonium Persulfate causes serious eye irritation.</i>
Respiratory Irritation	<i>Ammonium Persulfate may cause respiratory irritation.</i>
Respiratory or Skin Sensitization	<i>Tetraethylenepentamine, Ammonium Persulfate may cause an allergic skin reaction. Ammonium Persulfate may cause allergy or asthma symptoms or breathing difficulties if inhaled.</i>
Germ Cell Mutagenicity	<i>None of the ingredients are known or suspected of causing genetic defects.</i>
Carcinogen Data	<i>None of the ingredients are known or suspected carcinogens.</i>
Reproductive Toxicity	<i>None of the ingredients are known to cause reproductive harm.</i>
STOT-Single Exposure	<i>None of the ingredients are known to cause specific target organ effects from a single exposure.</i>
STOT-Repeated Exposure	<i>None of the ingredients are known to cause specific target organ effects through prolonged or repeated exposure.</i>
Aspiration Hazard	<i>Kerosene may be fatal if swallowed and enters airways.</i>

Information on the Likely Routes of Exposure

Routes of Exposure *Skin contact, absorption, eye contact, inhalation.*

Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Symptoms of Exposure *Abdominal cramps, burning sensation, central nervous system depression, chemical pneumonitis, confusion, cough, dermatitis, drowsiness, eye irritation, headache, skin irritation, throat irritation, vomiting.*

Delayed and Immediate Effects and Also Chronic Effects from Short and Long Term Exposure

Delayed Effects *No known delayed effects.*

Immediate Effects *No known immediate effects.*

Chronic Effects *Not available.*

Medical Conditions Aggravated *May aggravate personnel with pre-existing disorders associated with any of the Target Organs.*

Target Organs *Central nervous system, eyes, liver, lymphoid system, respiratory system, skin.*

Interactive Effects

Synergistic Effects *No known synergistic effects.*

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity

ID	TYPE	FISH			INVERTEBRATES			AQUATIC PLANTS			MICROORGANISMS		
		VALUE	PERIOD	TYPE	VALUE	PERIOD	TYPE	VALUE	PERIOD	TYPE	VALUE	PERIOD	
2	LC50	11000 mg/L	96h	EC50	10800 mg/L	24h	LOEC	1450 mg/L	8d	LOEC	6500 mg/L	16h	
3	LC50	205 mg/L	96h	—	—	—	—	—	—	—	—	—	
4	LC50	65 mg/L	96h	EC0	180 mg/L	—	IC0	120 mg/L	—	—	—	—	
5	LC50	0.093 mg/L	48h	—	—	—	—	—	—	—	—	—	
6	LC50	420 mg/L	96h	EC50	24.1 mg/L	48h	EC50	2.1 mg/L	72h	EC50	1600 mg/L	1h	
7	LC50	62.7 mg/L	96h	EC50	120 mg/L	48h	—	—	—	—	—	—	

Ecological Data

ID	PERSISTENCE	PERSISTENCE AND DEGRADABILITY			BIOACCUMULATIVE POTENTIAL			MOBILITY
		BOD	COD	ThOD	Pow / Kow	BCF	Koc	
1	—	0.53 mg/g	—	3.46 mg/g	3.30 log Pow	—	—	
2	—	930 mg/g	1700 mg/g	2.10 mg/g	-0.31 log Pow	—	—	
3	—	—	2.25 mg/g	2.89 mg/g	7.73 log Pow	10 BCF	5.24 log Koc	
4	—	0.72 mg/g	—	2.34 mg/g	2.3 log Pow	1.55 log BCF	1.59 log Koc	
5	—	—	—	—	-2.99 log Pow	—	—	
6	—	—	—	3400 mg/g	-3.16 log Pow	-1.4 log BCF	3.04 log Koc	

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal	<i>Product is suitable for burning in an enclosed, controlled burner for fuel value. Hazard characteristics and regulatory waste stream classification can change with product use and location. It is the responsibility of the user to determine the proper storage, transportation, treatment, and/or disposal methodologies for spent materials and residues at the time of disposition. All waste material must be disposed of in compliance with the respective national, federal, state, and/or local regulations.</i>
Waste Disposal of Packaging	<i>Consult with your local landfill to determine if empty small containers can be disposed of with regular trash. For disposal of large containers (typically 10 gallon or larger), or for containers not suitable for landfill, a licensed reconditioner should be used.</i>
Landfill Precautions	<i>Not Available</i>

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Incineration Precautions

Not Available

SECTION 14 - TRANSPORTATION INFORMATION

	DOT	ICAO/IATA	IMDG	ADR	TDG
ID Number	UN1993	UN1993	UN1993	UN1993	UN1993
Proper Shipping Name	Flammable Liquid, NOS (Contains Kerosene and Ethanol), Limited Quantity	Flammable Liquid, NOS (Contains Kerosene and Ethanol), Limited Quantity	Flammable Liquid, NOS (Contains Kerosene and Ethanol), Limited Quantity	Flammable Liquid, NOS (Contains Kerosene and Ethanol), Limited Quantity	Flammable Liquid, NOS (Contains Kerosene and Ethanol), Limited Quantity
Hazard Class(es)	3	3	3	3	3
Packing Group	II	II	II	II	II
Environmental Hazards	No	No	No	No	No
Special Precautions	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Hazard Labels					

SECTION 15 - REGULATORY INFORMATION

United States - Federal Regulations

ID	TSCA LISTED	SARA 302 EHS TPQ	RCRA	CERCLA	SARA 313	FIRE	REACTIVITY	SARA 311/312 ACUTE	CHRONIC	PRESSURE	CLEAN AIR ACT HAP	CLEAN WATER ACT SOCMI	CLEAN WATER ACT
1	✓							Yes					
2	✓					Yes							
3	✓												
4	✓			5000		Yes							5000
5	✓			1000	5%			Yes					1000
6	✓							Yes					
7	✓							Yes					

United States - State Regulations

ID	CA P-65	DE RQ	MA RTK CODES	ME TYPE	ME RQ	ME RTK	MN AIR	WATER	NJ RTK	NJ AIR	NY LAND	NY ACUTE	PA LISTED	WA PEL TWA	WI TABLE	WV TAP
1			5										Yes			
2			2,4,5,6 *T1*			AO							Yes	1000 ppm		
3													Yes			
4		5000	2,4,5,6 F8			AO				5000	1		Yes-E	100 ppm	A	
5		1000	F8							1000	100		Yes-E			
6			6										Yes			
7																A

Canadian Regulations

ID	WHMIS CATEGORIES										CHEMICAL LISTS		
	A	B	C	D1A	D1B	D2A	D2B	D3	E	DSL	NDSL	NPRI	
1		B3					✓			✓			
2		B2					✓			✓		5	
3										✓			
4		B2								✓			
5									✓	✓			
6					✓				✓	✓			
7			✓			✓	✓			✓			

CPR Notice

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.

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WHMIS Classification

B2,D1B,D2A,D2B,E

WHMIS Symbols



European Union Regulations

1907/2006		67/548/EEC		1272/2008	
ID	SVHC	CLASSIFICATION	HAZARD CODES	PICTOGRAM CODES	SUPPL. CODES
1		Xn	H304	GSH08,Dgr	
2		F	H225	GHS02,Dgr	
4			H226	GHS02,Wng	EUH066
5		C;N	H314,H400	GHS05,GHS09,Dgr	
6		C;N	H312,H302,H314,H317,G411	GHS05,GHS07,GHS09,Dgr	

Classification According to EU Directive 1999/45/EC or 67/548/ECC (see Section 16 for full text)

67/548/EEC Pictograms



Risk Phrases

11-21/22-34-36/37/38-42/43-51/53-65-66

Safety Phrases

2-16-24/25-26-36/37/39-45-61-62

International Regulations

Chemical Weapons Convention

None of the ingredients are listed on the convention's schedules.

SECTION 16 - OTHER INFORMATION

Full Text of EU Phrases and Precautionary Statements

CODE	HAZARD STATEMENTS
H225	Highly flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long last effects
H302+H312	Harmful if swallowed or in contact with skin

CODE	SUPPLEMENTAL STATEMENTS
EUH066	Repeated exposure may cause skin dryness or cracking.

CODE	PRECAUTIONARY STATEMENTS
P102	Keep out of reach of children
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking
P221	Take any precaution to avoid mixing with combustibles
P233	Keep container tightly closed
P240	Ground/bond container and receiving equipment
P241	Use explosion proof equipment
P242	Use only non-sparking tools
P243	Take precautions against static discharge
P260	Do not breath fumes
P264	Wash hands thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P272	Contaminated work clothing should not be allowed out of the workplace
P280	Wear protective gloves/protective clothing/eye protection/face protection
P284	Wear respiratory protection
P302+P352	IF ON SKIN: Wash with plenty of soap and water
P204+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

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CODE	RISK PHRASES
11	Highly flammable
21/22	Harmful in contact with skin and if swallowed
34	Causes burns
36/37/38	Irritating to eyes, respiratory system and skin
42/43	May cause sensitization by inhalation and skin contact
52/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
65	Harmful: may cause lung damage if swallowed
66	Repeated exposure may cause skin dryness and cracking

CODE	SAFETY PHRASES
2	Keep away from children
16	Keep away from sources of ignition – no smoking
24/25	Avoid contact with skin and eyes
36/37/39	Wear suitable protective clothing, gloves and eye/face protection
45	In case of accident, or if you feel unwell, seek medical advice immediately
61	Avoid release to the environment
62	If swallowed do not induce vomiting: seek medical advice immediately

SDS Revision History

- Revision 1, 10/06/2009 - original
- Revision 2, 01/28/2011 - updated toxicity values
- Revision 3, 06/26/2012 - updated to include GHS and CLP information
- Revision 4, 03/05/2013 - updated to full GHS compliance
- Revision 5, 01/19/2016 - general update

Disclaimer of Liability *The information contained herein is based upon data provided to us by our suppliers, and reflects our best judgement. However, no warranty of merchantability, fitness for any use, or any other warranty or guarantee is expressed or implied regarding the accuracy of such data, or the results to be obtained from use thereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of such application. This information is furnished upon the condition that the persons receiving it shall make their own determinations of the suitability of the material for any particular use. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist.*

Abbreviations Used

ACGIH	American Conference of Industrial Hygienists	MPEL-PTA	Maximum Permissible Exposure Limit on Pondered Time Average
ADR	European Agreement ... International Carriage of Dangerous Goods by Road		
BCF	Bioconcentration Factor		
BEI	Biological Exposure Index		
BOD	Biochemical Oxygen Demand		
CA	California		
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (USA)		
CFR	Code of Federal Regulations (USA)		
CLP	Classification, Labelling and Packaging of Substances (Europe)		
COD	Chemical Oxygen Demand		
CPR	Controlled Products Regulations (Canada)		
DE	Delaware		
DOT	Department of Transportation (USA)		
DSL	Domestic Substance List (Canada)		
EC	European Community		
EC50	Effective Concentration 50%		
EHA	Extremely Hazardous Substance		
EPA	Environmental Protection Agency (USA)		
g/cc	Grams per Cubic Centimeter		
GHS	Globally Harmonized System		
HAP	Hazardous Air Pollutant		
IARC	International Agency for Research on Cancer		
IATA	International Air Transportation Association		
IC50	Half Maximal Inhibitory Concentration		
ICAO	International Civil Aviation Organization		
IDLH	Immediately Dangerous to Life and Health		
IMDG	International Maritime Dangerous Goods		
Kow	Octanol-Water Partition Coefficient		
lbs/gal	Pounds per Gallon		
LC50	Lethal Concentration 50%		
LD50	Lethal Dosage 50%		
MA	Massachusetts		
MAK	Maximale Arbeitsplatz Konzentration (Maximum Workplace Concentration)		
Max	Maximum		
mg/L	Milligrams per Litre		
mg/m3	Milligrams per Cubic Meter		
MN	Minnesota		

SAFETY DATA SHEET

NDSL	Non-Domestic Substance List (Canada)
NIOSH	National Institute for Occupational Safety and Health (USA)
NJ	New Jersey
NOEC	No Observed Effect Concentration
NPRI	National Pollutant Release Inventory (Canada)
NTP	National Toxicity Program (USA)
NY	New York
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration (USA)
P-65	Proposition 65 (USA)
PA	Pennsylvania
Pow	Octanol-Water Partition Coefficient
ppm	Parts per Million
psig	Pounds per Square Inch Gage
RCRA	Resource Conservation and Recovery Act (USA)
REL	Recommended Exposure Limit
RQ	Reportable Quantity
RTK	Right to Know
SARA	Superfund Amendments and Reauthorization Act (USA)
SDS	Safety Data Sheet
SOCMI	Synthetic Organic Chemical Manufacturing Industry (USA)
STOT-RE	Suspected Target Organ Toxin, Repeat Exposure
STOT-SE	Suspected Target Organ Toxin, Single Exposure
SVHC	Substance of Very High Concern
TAP	Toxic Air Pollutant
TDG	Transportation of Dangerous Goods (Canada)
ThOD	Theoretical Oxygen Demand
TLV	Threshold Limit Value
TPQ	Threshold Planning Quantity
TSCA	Toxic Substances Control Act (USA)
TWA	Time Weighted Average
TWAEV	Time Weighted Average Exposure Value
VOC	Volatile Organic Compound
WA	Washington
WEL	Workplace Exposure Limit
WHMIS	Workplace Hazardous Materials Information System (Canada)
WI	Wisconsin
WV	West Virginia