



# SAFETY DATA SHEET

EPA REG NO. 91658-1

JS 685

Revision Date 2/19/2016

**SECTION – 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Product Name** JS 685 **Item**

**Product Use** Insecticide that Protects Electrical Equipment from Fire Ants

**Company Name** Anton International, Inc. **Office** (855) 909-8585  
P.O. Box 19041 **Fax**  
Atlanta GA 31126 **Web** [www.js685.com](http://www.js685.com)

**EMERGENCY TELEPHONE NUMBER** **INFOTRAC** **(800) 535-5053**

**SECTION – 2 HAZARDS INFORMATION**

Pictogram

**Signal Word** Danger**Hazards** Health, Physical and Environmental Hazard StatementsHazard ClassificationCode

Extremely flammable aerosol	Category 1 Flammable Aerosols	H222
Harmful if swallowed	Category 4 Acute Toxicity (Oral)	H302
May be fatal if swallowed and enters airways	Category 1 Aspiration Toxicity	H304
Harmful in contact with skin	Category 4 Acute Toxicity (Dermal)	H312
Causes skin irritation	Category 2 Skin	H315
Causes serious eye damage	Category 1 Eyes	H318
May cause respiratory irritation	Category 3 STOT Single Exposure	H335
May cause drowsiness or dizziness	Category 3 STOT Single Exposure	H336
Very toxic to aquatic life	Category 1 Acute Toxicity	H400
Toxic to aquatic life	Category 2 Acute Toxicity	H401

**Precautions** Handling, Storage and DisposalCode

If medical advice is needed, have product container or label at hand	P101
Keep out of reach of children	P102
Read label before use	P103
Keep away from heat/sparks/open flames/hot surfaces – No smoking	P210
Do not spray on an open flame or other ignition source	P211
Pressurized container: Do not pierce or burn, even after use	P251
Avoid breathing dust/fume/gas/mist/vapours/spray	P261
Do not get in eyes, on skin, or on clothing	P262
Wash thoroughly after handling	P264
Do not eat, drink or smoke when using this product	P270
Avoid release to the environment	P273
Wear protective gloves/protective clothing/eye protection/face protection	P280
Explosion risk in case of fire	P372
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F	P410+P412

**SECTION – 3 COMPOSITION INFORMATION**

(Exact percentage of the listed chemicals of composition has been withheld as a trade secret)

<u>CHEMICAL NAME</u>	<u>COMMON NAME AND SYNONYMS</u>	<u>CAS #</u>	<u>IMPURITIES</u>	<u>PERCENT</u>
Pyrethrins		8003-34-7		0.1%
Piperonyl Butoxide, Technical	2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether	51-03-6		1.0%
Isopropyl Alcohol	Isopropanol, 2-propanol	67-63-0	Water <1%	1 - 5%
Cyclohexane		110-82-7		50 - 70%
Propane	"Propellant"	74-98-6		10 - 25%
Isobutane	"Propellant"	75-28-5		10 - 25%
Isoparaffinic Hydrocarbon	Distillates (Petroleum), Hydrotreated Light	64742-47-8		1 - 5%

\*Equivalent to 0.8% (butylcarbityl) (6-propylpiperonyl) ether and 0.2% related compounds.

**SECTION – 4 FIRST AID MEASURES**

**EYE CONTACT** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice

**SKIN CONTACT** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advice

<b>INHALATION</b>	Move person to fresh air. If person is not breathing, call 911 or ambulance then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice
<b>INGESTION</b>	Immediately call poison control center or doctor. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person
<b>Aspiration Hazard</b>	Aspiration into the lungs can cause severe lung damage and is a medical emergency, Never give anything by mouth to an unconscious person. Call a physician or hospital emergency room immediately, If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing

**ACUTE SYMPTOMS OF SINGLE OVEREXPOSURE**

<b>Eyes</b>	Can cause serious eye irritation, discomfort, redness, tearing, pain, or possible eye damage
<b>Skin</b>	Can cause skin irritation, redness, burning, drying or cracking, May be harmful if absorbed through skin
<b>Inhalation</b>	May be harmful if inhaled, Mist, vapor or fumes may cause, irritation to upper respiratory tract, nausea, headache, dizziness, drowsiness
<b>Ingestion</b>	Harmful if swallowed, May affect target organs, May cause lung damage if swallowed and enters airways

**CHRONIC SYMPTOMS OF PROLONGED OR REPEATED OVEREXPOSURE**

<b>Eyes</b>	Causes serious eye damage, redness, tearing, pain, or corneal injury
<b>Skin</b>	Causes skin irritation, defatting of the skin which may lead to dermatitis, Harmful if absorbed through skin
<b>Inhalation</b>	May be harmful if inhaled, Mist, vapor or fumes may cause, irritation to respiratory tract, nausea, headache, dizziness, drowsiness, central nervous system depression
<b>Ingestion</b>	Harmful if swallowed, May be fatal if swallowed and enters airways, May affect target organs, liver, kidneys, central nervous system

**SECTION – 5 FIRE FIGHTING MEASURES**

<b>Extinguishing Media</b>	SUITABLE: Use DRY chemicals, CO2, alcohol foam. Water spray to cool or protect exposed materials UNSUITABLE: Avoid using a water stream. Product will float upon water and could spread any fire
<b>Hazardous Decomposition</b>	Burning or thermal decomposition can produce, aldehydes, carbon monoxide, carbon dioxide, silicon oxides, and other toxic fumes
<b>Reactive With</b>	Reactive with, strong oxidizing agents, strong bases, strong acids, ammonia, aldehydes, hydrogen fluoride, oxygen difluoride, chlorine trifluoride
<b>Explosion Hazards</b>	May explode if ignited in an enclosed area. Flashback along vapor trail may occur, Exposure to temperatures above 130°F may cause bursting, incineration of container may cause explosion
<b>Static Discharge</b>	Expected to ignite product
<b>Mechanical Impact</b>	Contents under pressure. Do not puncture or impact container
<b>Protective Equipment</b>	Use MSHA/NIOSH approved self-contained breathing apparatus and full protective gear

**SECTION – 6 ACCIDENTAL RELEASE MEASURES**

<b>Emergency Procedures</b>	Warn personnel to move away and stay upwind from spill
<b>Personal Precautions</b>	Eliminate ignition sources and ventilate area
<b>Protective Equipment</b>	Safety Glasses, Chemical Gloves and Rubber Boots
<b>Containment</b>	Use sand or inert non-combustible absorbent pads to prevent spill from spreading
<b>Clean Up Procedures</b>	Use sand or inert non-combustible absorbent pads or material and place in a chemical waste disposal container
<b>Disposal</b>	Dispose of material in accordance with all State and Federal Guidelines and Regulations, Do not puncture or incinerate! IF EMPTY: Place in trash or offer recycling if available. IF PARTLY FILLED: Call your local solid waste agency or 1-800-CLEANUP for disposal instructions.

**SECTION – 7 HANDLING AND STORAGE**

<b>Handling</b>	Keep away from incompatible materials, heat, sparks, electrical equipment, fire and all ignition sources, Use appropriate safety equipment, and adequate ventilation, Avoid eye and skin contact, Harmful if absorbed through skin, Avoid inhalation of mist, vapors or fumes, May cause drowsiness or dizziness, Harmful if swallowed, Do not smoke, eat or drink while using, Wash thoroughly after handling, Avoid release to the environment
<b>Storage</b>	KEEP OUT OF REACH OF CHILDREN, DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL, Store in a well-ventilated area and away from incompatible materials, Store away from heat, sparks, open flames or hot surfaces, Vapors may spread long distances and ignite explosively, Store below 49°C (120°F) and in accordance with Class 1A Flammable Liquids (GHS Category 1), Avoid storing in direct sunlight
<b>Incompatible Materials</b>	Incompatible with, strong oxidizing agents, strong bases, strong acids, ammonia, aldehydes, hydrogen fluoride, oxygen difluoride, chlorine trifluoride

**SECTION – 8 EXPOSURE CONTROLS / PERSONAL PROTECTION****EXPOSURE LIMITS**

CHEMICAL NAME	ACGIH (TWA 8)	ACGIH (STEL)	OSHA PEL (TWA 8)	OSHA (CEIL)	Significant Exposure
Cyclohexane	100 ppm		300 ppm (1050 mg/m <sup>3</sup> )		EI
Pyrethrins	5 mg/m <sup>3</sup>		5 mg/m <sup>3</sup>		RT, LD
Isopropyl Alcohol	200 ppm (A4)	400 ppm	400 ppm	500 ppm (1225 mg/m <sup>3</sup> )	CNS
Propane	1000 ppm		1000 ppm (1800 mg/m <sup>3</sup> )		
Isoparaffinic Hydrocarbon	152 ppm (1200 mg/m <sup>3</sup> )				
Piperonyl Butoxide, Technical	None Established				
Isobutane	1,000 ppm		800 ppm (1900 mg/m <sup>3</sup> )		

**PERSONAL PROTECTIVE EQUIPMENT**Chemical Safety Glasses,  
Goggles or Face ShieldImpervious  
Chemical GlovesEye Wash  
(Recommended)**Ventilation**

If exposure limits listed above are exceeded, or irritation is experienced, use a MSHA / NIOSH approved respirator

**HMIS HAZARD RATINGS**

Health	2
Flammability	3
Reactivity	0
Personal Protection	B

**SECTION – 9 PHYSICAL AND CHEMICAL PROPERTIES**

Flash Point	-17.9°C (-0.38°F) - closed cup	Specific Gravity / Density	0.992
Flammable Limits	ND	pH (± 0.3)	ND
Auto-Ignition Temp.	ND	Viscosity	ND
Physical State	Aerosol	Freeze Point	ND
Appearance	White powder	Boiling Point	ND
Odor	Cyclohexane solvent odor	Vapor Density (air=1)	ND
Odor Threshold	ND	Vapor Pressure (mm Hg)	ND
Solubility	< 1%	Evaporation Rate (nBuAc=1)	ND
Volatiles	94.0%	Partition Coefficient	ND
VOC	89.05%	Molecular Weight (g/mol)	~ 81.61
LVP-VOC	4.90%	Decomposition Temperature	ND

**SECTION – 10 STABILITY AND REACTIVITY**

Reactivity (Specific Test Data)	None available
Chemical Stability	Stable when stored below 49°C (120°F)
Hazardous Polymerization	Will not occur
Conditions To Avoid	Heat sources, sparks, flame or static discharge and incompatible materials
Incompatible Materials	Incompatible with, strong oxidizing agents, strong bases, strong acids, ammonia, aldehydes, hydrogen fluoride, oxygen difluoride, chlorine trifluoride
Thermal Decomposition	Burning or thermal decomposition can produce, carbon monoxide, carbon dioxide, silicon oxides, and other toxic fumes

**SECTION – 11 TOXICOLOGICAL INFORMATION****ROUTES OF EXPOSURE**

Eyes (Yes), Skin (Yes), Ingestion (Yes "Aspiration Hazard"), Inhalation (Yes "Mist or Vapors")

**ACUTE SYMPTOMS OF SINGLE OVEREXPOSURE**

**Eyes** Can cause serious eye irritation, discomfort, redness, tearing, pain, or possible eye damage  
**Skin** Can cause skin irritation, redness, burning, drying or cracking, May be harmful if absorbed through skin  
**Inhalation** May be harmful if inhaled, Mist, vapor or fumes may cause, irritation to upper respiratory tract, nausea, headache, dizziness, drowsiness  
**Ingestion** Harmful if swallowed, May affect target organs, May cause lung damage if swallowed and enters airways

**CHRONIC SYMPTOMS OF PROLONGED OR REPEATED OVEREXPOSURE**

**Eyes** Causes serious eye damage, redness, tearing, pain, or corneal injury  
**Skin** Causes skin irritation, defatting of the skin which may lead to dermatitis, Harmful if absorbed through skin  
**Inhalation** May be harmful if inhaled, Mist, vapor or fumes may cause, irritation to respiratory tract, nausea, headache, dizziness, drowsiness, central nervous system depression  
**Ingestion** Harmful if swallowed, May be fatal if swallowed and enters airways, May affect target organs, liver, kidneys, central nervous system

**Acute Tox Calculated** **Oral:** ~ 2,000 mg/kg **Dermal:** ~ 2,000 mg/kg **Inhaled:** 70.6 mg/L  
**Acute Tox Category** Category 4 (Oral >300, ≤2000 mg/kg), Category 4 (Dermal >1000, ≤2000 mg/kg), Not applicable (Inhaled >12.5 mg/L) Dust or Mist

**Additional Info**

**Target Organs** Kidneys, Liver, Respiratory Tract, Eyes (Lens or cornea), Skin, Central Nervous System  
**Medical Conditions** Preexisting, eye, skin, liver, kidney, central nervous system, respiratory, disorders may be aggravated by exposure to this product  
**Notes to Physician** Probable mucosal damage may contraindicate the use of gastric lavage, Contains petroleum distillate vomiting may cause aspiration pneumonia

**CARCINOGENIC – This product contains concentrations above 0.1% of the following:**

<b>CHEMICAL NAME</b>	<b>NTP</b>	<b>ACGIH</b>	<b>IARC</b>	<b>GHS Category</b>
None Listed	NA	NA	NA	NA

**MUTAGENIC AND REPRODUCTIVE EFFECTS – This product contains concentrations above 0.1% of the following:**

<b>CHEMICAL NAME</b>	<b>Germ Cell Mutagenicity</b>	<b>Toxic to Reproduction</b>
None Listed	NA	NA

**COMPONENTS ACUTE TOXICITY**

<b>CHEMICAL NAME</b>	<b>Type</b>	<b>Form</b>	<b>Subject</b>	<b>Result Value</b>	<b>Exposure Time</b>	<b>GHS Category</b>
Isopropyl Alcohol	LD50	Oral	Rat	5,045 mg/kg		(>2000 mg/kg)
	LD50	Dermal	Rabbit	12,870 mg/kg		(>2000 mg/kg)
	LC50	Inhalation	Rat	78.6 mg/L	4 Hours (Vapor)	(>20 mg/L)
Isoparaffinic Hydrocarbon	LD50	Oral	Rat	15,000 mg/kg		(>2000 mg/kg)
	LD50	Dermal	Rabbit	> 3,160 mg/kg		(>2000 mg/kg)
Pyrethrum	LD50	Oral	Rat	200 mg/kg		3 (>50, ≤300 mg/kg)
	LC50	Inhaled	Rat	3.4 mg/L	4 Hours (Vapor)	3 (>2, ≤10 mg/L)
	LD50	Dermal	Rabbit	300 mg/kg		3 (>200, ≤1000 mg/kg)
Piperonyl Butoxide	LD50	Oral	Rat	5,630 mg/kg		(>2000 mg/kg)
	LD50	Dermal	Rabbit	> 2,000 mg/kg		(>2000 mg/kg)
Cyclohexane	LC50	Inhaled	Rat	> 5.9 mg/L	4 Hours (Mist)	(>5 mg/L)
	LD50	Oral	Rat	12,705 mg/kg		(>2000 mg/kg)
	LD50	Dermal	Rabbit	> 2,000 mg/kg		
Isobutane	LC50	Inhaled	Rat	34,000 mg/L	4 Hours (Vapor)	(>20 mg/L)
	LC50	Inhaled	Rat	> 20 mg/L	4 Hours (Gas)	(>20 mg/L)
Propane	LC50	Inhaled	Rat	> 20 mg/L	4 Hours (Gas)	(>20 mg/L)

**SECTION – 12 ECOLOGICAL INFORMATION**

<u>CHEMICAL NAME</u>	<u>Type</u>	<u>Subject</u>	<u>Subject Latin</u>	<u>Result Value</u>	<u>Exposure Time</u>	<u>GHS Category</u>
Isopropyl Alcohol	LC50	Fish	(Leuciscus idus)	>100 mg/L	96 Hours	4 (>100 mg/L)
	EC50	Water Flea	(Daphnia magna)	5,102 mg/L	24 Hours	4 (>100 mg/L)
	LC50	Fathead Minnow	(Pimephales promelas)	9,640 mg/L	96 Hours	4 (>100 mg/L)
Pyrethrum	LC50	Channel Catfish	(Ictalurus punctatus)	0.012 mg/L	96 Hours	1 (≤1 mg/L)
	EC50	Water Flea	(Daphnia magna)	0.032 mg/L	48 Hours	1 (≤1 mg/L)
Piperonyl Butoxide	LC50	Rainbow Trout	(Oncorhynchus mykiss)	6.12 mg/L	96 Hours	2 (>1, ≤10 mg/L)
	EC50	Water Flea	(Daphnia magna)	0.05 mg/L	48 Hours	1 (≤1 mg/L)
Cyclohexane	LC50	Fathead Minnow	(Pimephales promelas)	4.53 mg/L	96 Hours	2 (>1, ≤10 mg/L)
	EC50	Water Flea	(Daphnia magna)	0.9 mg/L	48 Hours	1 (≤1 mg/L)
<b>Presistence And Degradability</b>	No specific biodegradation test data was located					
<b>Bioaccumulative Potential</b>	There is no evidence to suggest bioaccumulation will occur					
<b>Mobility In Soil</b>	Expected to have low mobility in soil					
<b>Other Adverse Effects</b>	Very toxic to aquatic life with long lasting effects					

**SECTION – 13 DISPOSAL CONSIDERATIONS**

**DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER**  
 Dispose of any waste in accordance with all State and Federal Guidelines and Regulations

**STORAGE AND DISPOSAL**

**DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL**


**ENVIRONMENTAL FATE**

PESTICIDE DISPOSAL - Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law.

If these wastes cannot be disposed of by use according to label instructions contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL - Do not puncture or incinerate! IF EMPTY: Place in trash or offer recycling if available. IF PARTLY FILLED: Call your local solid waste agency or 1-800-CLEANUP for disposal instructions

**SECTION – 14 TRANSPORT INFORMATION****DOT CLASSIFICATION**

<u>UN Number</u>	<u>Proper Shipping Name</u>	<u>n.o.s. ( Chemicals ) or "Limits"</u>					
UN 1950	AEROSOLS, FLAMMABLE, n.o.s. ( Pyrethrins, Cyclohexane )						
<u>Hazard Class</u>	<u>Packing Group</u>	<u>Label Codes</u>	<u>Reportable Quantity (lbs)</u>	<u>Response</u>	<u>Marine Pollutant</u>	<u>Hazard Label</u>	<u>Secondary</u>
2.1	None	Flammable Gas	Pyrethrins (1 lb)	126	Yes		
<b>Additional Info:</b>							

**SECTION - 15 REGULATORY INFORMATION**

<b>TSCA</b>				
<b>CHEMICAL NAME</b>	<b>Sec 8(b) Inventory</b>	<b>Sec 8(d) Health And Safety</b>	<b>Sec 4(a) Chemical Test Rules</b>	<b>Sec 12(b) Export Notification</b>
Isopropyl Alcohol	Yes	Yes		
Piperonyl Butoxide	Yes			
Pyrethrum	Yes			

<b>REPORTABLE QUANTITIES</b>						
<b>CHEMICAL NAME</b>	<b>Extremely Hazardous</b>		<b>Reportable Quantity</b>	<b>Emission Reporting</b>		
	<b>EPCRA TPQ Sec 302</b>	<b>EPCRA RQ Sec 304</b>	<b>CERCLA RQ Sec 103</b>	<b>TRI Sec 313</b>	<b>RCRA Code</b>	<b>RMP TQ Sec 112r</b>
2-Propanol				Yes		
Pyrethrum			1			
Piperonyl Butoxide				Yes		
Cyclohexane			1000	Yes	U056	

<b>SARA</b>						
<b>CHEMICAL NAME</b>	<b>Section 311</b>		<b>Section 311 / 312 Hazards</b>			
	<b>Hazardous Chemical</b>	<b>Acute</b>	<b>Chronic</b>	<b>Flammable</b>	<b>Pressure</b>	<b>Reactive</b>
Isoparaffinic Hydrocarbon				Yes		
Isobutane	Yes			Yes	Yes	
Propane	Yes			Yes	Yes	
Cyclohexane	Yes	Yes		Yes		
Isopropyl Alcohol	Yes	Yes	Yes	Yes		
Pyrethrum		Yes		Yes		

<b>RIGHT TO KNOW</b>													
<b>CHEMICAL NAME</b>	<b>STATE</b>												
	<b>CA</b>	<b>CT</b>	<b>FL</b>	<b>IL</b>	<b>LA</b>	<b>NJ</b>	<b>NY</b>	<b>PA</b>	<b>MI</b>	<b>MN</b>	<b>MA</b>	<b>RI</b>	<b>WI</b>
Isobutane						Yes		Yes			Yes		
Propane						Yes		Yes			Yes		
Cyclohexane						Yes		Yes			Yes		
Isopropyl Alcohol			Yes			Yes		Yes		Yes	Yes	Yes	
Piperonyl Butoxide						Yes		Yes					
Pyrethrum	Yes	Yes		Yes		Yes		Yes		Yes	Yes	Yes	

<b>CALIFORNIA</b>					
<b>CHEMICAL NAME</b>	<b>CAS #</b>	<b>WARNING! This product contains chemicals known to the state of California to cause:</b>			
		<b>Birth Defects</b>	<b>Reproductive Harm</b>	<b>Carcinogen</b>	<b>Developmental</b>
None Listed					

<b>CLEAN AIR WATER ACTS</b>							
<b>CHEMICAL NAME</b>	<b>CAS #</b>	<b>Clean Air Acts</b>			<b>Clean Water Acts</b>		
		<b>HAP</b>	<b>Ozone Class 1</b>	<b>Ozone Class 2</b>	<b>HS</b>	<b>PP</b>	<b>TP</b>
None Listed							

<b>INTERNATIONAL REGULATIONS</b> – The components of this product are listed on the chemical inventories of the following countries:						
<b>CHEMICAL NAME</b>	<b>Australia</b>	<b>Canada</b>	<b>Europe (EINECS)</b>	<b>Japan</b>	<b>Korea</b>	<b>UK</b>
Isopropyl Alcohol	Yes	Yes	Yes	Yes	Yes	Yes
Pyrethrum	Yes	Yes	Yes			

**FIFRA Label Information**

- This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law.
- These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals.
- The following is the hazard information as required on the pesticide label.

PRECAUTIONARY STATEMENTS, HAZARDS TO HUMANS AND DOMESTIC ANIMALS, DANGER, CORROSIVE, Causes eye damage, Harmful if swallowed or absorbed through the skin, Avoid breathing vapors or spray mist, Avoid contact with skin and eyes, Wear goggles or face shield, and rubber gloves when handling, PHYSICAL OR CHEMICAL HAZARDS, EXTREMELY FLAMMABLE!, Do not use or store near fire, sparks, or heated surfaces. Do not smoke in use area. Contents under pressure. Do not puncture or incinerate. Exposure to temperatures above 130°F may cause bursting. Incineration of container may cause explosion.

**SECTION – 16 OTHER INFORMATION****SDS LEGEND DESCRIPTION**

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists	<b>LC50</b>	A concentration that is lethal to 50% of a given species in a given time
<b>CAS</b>	Chemical Abstracts Service Registry	<b>LD50</b>	Dose that is lethal to 50% of a given species by a given route of exposure
<b>CEIL</b>	Ceiling Limit (15 minutes)	<b>LEL</b>	Lower Explosive Limit
<b>CERCL</b>	Comprehensive Environmental Response, Compensation, and Liability Act	<b>LD</b>	Liver Damage
<b>CI</b>	Cochlear Impairment	<b>NA</b>	Not Applicable
<b>CNS</b>	Central Nervous System	<b>ND</b>	Not Determined
<b>EC50</b>	Concentration of a chemical that gives half-maximal response	<b>NFPA</b>	National Fire Protection Association
<b>EPA</b>	Environmental Protection Agency	<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>Eye</b>	(EI = Irritation) (ED = Damage) (EV = Visual Impairment)	<b>NE</b>	Not Established
<b>FBG</b>	Full Bunker Gear	<b>NTP</b>	National Toxicology Program
<b>GHS</b>	Globally Harmonized System	<b>OSHA</b>	Occupational Safety and Health Administration
<b>HAP</b>	California Hazardous air pollutant Clean Air Act	<b>PEL</b>	Permissible Exposure Limit (OSHA)
<b>HMIS-A</b>	Safety Glasses	<b>PNS</b>	Peripheral Nervous System
<b>HMIS-B</b>	Safety glasses, gloves	<b>PP</b>	California Priority Pollutant under the Clean Water Act
<b>HMIS-C</b>	Safety glasses, gloves, chemical apron	<b>REL</b>	Recommended exposure limit (NIOSH)
<b>HMIS-D</b>	Face shield, gloves, chemical apron	<b>RT</b>	Upper Respiratory Tract
<b>HMIS-E</b>	Safety glasses, gloves, dust respirator	<b>Skin</b>	(SI = Irritation) (SD = Damage) (SA = Absorption) (SS = Sensitizer)
<b>HMIS-F</b>	Safety glasses, gloves, chemical apron, dust respirator	<b>SARA</b>	Superfund Amendments and Reauthorization Act
<b>HMIS-G</b>	Safety glasses, gloves, vapor respirator	<b>STEL</b>	Short Term Exposure Limit (15 minutes)
<b>HMIS-H</b>	Splash goggles, gloves, chemical apron, vapor respirator	<b>TC Lo</b>	Lowest concentration that is toxic to a given species in a given time
<b>HMIS-I</b>	Safety glasses, gloves, dust and vapor respirator	<b>TD Lo</b>	Lowest dose that is toxic to a given species
<b>HMIS-J</b>	Splash goggles, gloves, chemical apron, dust and vapor respirator	<b>TLV</b>	Threshold Limit Value (ACGIH)
<b>HMIS-K</b>	Air line hood or mask, gloves, full chemical suit, boots	<b>TP</b>	California Toxic Pollutant under the Clean Water Act
<b>HMIS-X</b>	Ask Supervisor	<b>TSCA</b>	Toxic Substances Control Act
<b>HS</b>	California Hazardous Substance under the Clean Water Act	<b>TWA</b>	Time Weighted Average (8 hours)
<b>KD</b>	Kidney Damage (nephropathy)	<b>UEL</b>	Upper Explosive Limit

Anton International, Inc.

and nCites LLC have compiled the information herein from sources believed to be reliable and up-to-date, and is accurate to the best of our knowledge. However, we cannot give any guarantees regarding information from other sources or the completeness and expressly do not make warranties, nor assume any liability for its use. The information contained herein is provided for reference purposes only and is intended only for persons having relevant technical skills. Because conditions and manner of use are outside of our control, the user is responsible for determining the conditions of safe use of the product. Buyers and users assume all risk, responsibility and liability whatsoever for any and all injuries, losses, or damages to persons or property arising from the use of this product or information.

Print Date 2/22/2016

Supersedes Safety Data Sheet Dated