



# SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Product identifier</b>	<b>IPP 20:1 Nutrient Blend</b>
<b>Other means of identification</b>	Not available
<b>Recommended use</b>	Feed
<b>Recommended restrictions</b>	None known.
<b>Manufacturer information</b>	Irving Blending & Packaging PO Box 1169 Saint John, NB E2L 4E6 CA Phone: 1.800.574.5823 Emergency Phone: 1.506.648.3060
<b>Supplier</b>	See above.

## 2. Hazards Identification

<b>Physical hazards</b>	Corrosive to metals	Category 1
<b>Health hazards</b>	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
<b>Environmental hazards</b>	Not classified.	
<b>WHMIS 2015 defined hazards</b>	Not classified	
<b>Label elements</b>		



<b>Signal word</b>	Danger
<b>Hazard statement</b>	May be corrosive to metals. Causes severe skin burns and eye damage.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep only in original packaging. Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	Absorb spillage to prevent material-damage. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. Specific treatment (see information on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Storage</b>	Store locked up. Store in a corrosion resistant container with a resistant inner liner.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)</b>	None known
<b>WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)</b>	None known
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

## 3. Composition/Information on Ingredients

<b>Mixture</b>			
<b>Chemical name</b>	<b>Common name and synonyms</b>	<b>CAS number</b>	<b>%</b>
Urea		57-13-6	45
Phosphoric acid		7664-38-2	3

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#### 4. First Aid Measures

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<b>Inhalation</b>	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
<b>Skin contact</b>	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Specific treatment (see information on this label). Immediately call a POISON CENTER/doctor.
<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
<b>Most important symptoms/effects, acute and delayed</b>	Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. Treat patient symptomatically.
<b>General information</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear rubber gloves and safety glasses with side shields. Keep out of reach of children.

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#### 5. Fire Fighting Measures

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<b>Suitable extinguishing media</b>	Dry chemical, foam, carbon dioxide, water fog.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire. Use water with care - water applied directly will cause evolution of heat and splattering.
<b>Specific hazards arising from the chemical</b>	Firefighters should wear a self-contained breathing apparatus.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters should wear full protective clothing including self-contained breathing apparatus.
<b>Fire-fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of phosphorus. Ammonia.

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#### 6. Accidental Release Measures

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<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Prevent entry into waterways, sewer, basements or confined areas.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
<b>Environmental precautions</b>	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

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#### 7. Handling and Storage

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<b>Precautions for safe handling</b>	Use only with adequate ventilation. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. When using do not eat or drink. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. Keep container tightly closed.
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**Conditions for safe storage, including any incompatibilities**

Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS). Keep away from heat, open flames or other sources of ignition. Store in a tightly closed container in a cool, dry, well ventilated and dark place away from incompatible materials. Keep out of reach of children.

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## 8. Exposure Controls/Personal Protection

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**Occupational exposure limits****Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

Components	Type	Value
Phosphoric acid (CAS 7664-38-2)	STEL	3 mg/m3
	TWA	1 mg/m3

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	Type	Value
Phosphoric acid (CAS 7664-38-2)	STEL	3 mg/m3
	TWA	1 mg/m3

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

Components	Type	Value
Phosphoric acid (CAS 7664-38-2)	STEL	3 mg/m3
	TWA	1 mg/m3

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value
Phosphoric acid (CAS 7664-38-2)	STEL	3 mg/m3
	TWA	1 mg/m3

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value
Phosphoric acid (CAS 7664-38-2)	STEL	3 mg/m3
	TWA	1 mg/m3

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Phosphoric acid (CAS 7664-38-2)	PEL	1 mg/m3

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Phosphoric acid (CAS 7664-38-2)	STEL	3 mg/m3
	TWA	1 mg/m3

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Phosphoric acid (CAS 7664-38-2)	STEL	3 mg/m3
	TWA	1 mg/m3

**US. AIHA Workplace Environmental Exposure Level (WEEL) Guides**

Components	Type	Value	Form
Urea (CAS 57-13-6)	TWA	10 mg/m3	Total particulate.

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**      Wear safety glasses with side shields (or goggles).

<b>Skin protection</b>	
<b>Hand protection</b>	Rubber gloves. Confirm with a reputable supplier first.
<b>Other</b>	Wear appropriate chemical resistant clothing. As required by employer code.
<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).
<b>Thermal hazards</b>	Not applicable.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. When using do not eat or drink.

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## 9. Physical and Chemical Properties

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<b>Appearance</b>	Liquid
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	White
<b>Odor</b>	Slight ammonia
<b>Odor threshold</b>	Not available.
<b>pH</b>	2.5 - 2.9
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Pour point</b>	Not available.
<b>Specific gravity</b>	1.13 - 1.17
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.

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## 10. Stability and Reactivity

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<b>Reactivity</b>	This product may react with reducing agents. This product may react with strong oxidizing agents. May be corrosive to metals. Contact with most metals produces highly flammable hydrogen gas. May react with strong bases or oxidizing agents. This product may also react with: azo-compounds, halogenated compounds, sulphides and Peroxide.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Chemical stability</b>	Stable under recommended storage conditions.

<b>Conditions to avoid</b>	Do not mix with other chemicals. Heat, open flames, static discharge, sparks and other ignition sources. Do not mix with other materials or with water.
<b>Incompatible materials</b>	Organic materials. Alkaline materials. Halogenated compounds. Metals. Oxidizers. Reducing agents.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of phosphorus. Oxides of nitrogen. Oxides of carbon. Hydrogen gas. Nitrogen trichloride. Ammonia. Irritating, corrosive and/or toxic gases or fumes may be emitted upon the products decomposition.

## 11. Toxicological Information

**Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.

**Information on likely routes of exposure**

<b>Ingestion</b>	Causes digestive tract burns. May cause stomach distress, nausea or vomiting.
<b>Inhalation</b>	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.

**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

**Information on toxicological effects**

**Acute toxicity**

Components	Species	Test Results
Phosphoric acid (CAS 7664-38-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg, ECHA 2740 mg/kg, RTECS
<i>Inhalation</i>		
LC50	Guinea pig, Mouse, Rabbit, Rat	5337 mg/m <sup>3</sup> , 1 Hours, ECHA 3846 mg/m <sup>3</sup> , 1 Hours, ECHA 1689 mg/m <sup>3</sup> , 1 Hours, ECHA 1217 mg/m <sup>3</sup> , 1 Hours, ECHA 856 mg/m <sup>3</sup> , 1 Hours, ECHA 271 mg/m <sup>3</sup> , 1 Hours, ECHA 193 mg/m <sup>3</sup> , 1 Hours, ECHA 61 mg/m <sup>3</sup> , 1 Hours
<i>Oral</i>		
LD50	Rat	1530 mg/kg, RTECS 1.7 ml/100g
Urea (CAS 57-13-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	21000 mg/kg
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Cattle	510 mg/kg
	Mouse	11500 mg/kg 11000 mg/kg
	Rat	14300 mg/kg 8471 mg/kg
	Sheep	510 mg/kg

**Skin corrosion/irritation** Causes severe skin burns and eye damage.

<b>Exposure minutes</b>	Not available.
<b>Erythema value</b>	Not available.

<b>Oedema value</b>	Not available.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Corneal opacity value</b>	Not available.
<b>Iris lesion value</b>	Not available.
<b>Conjunctival reddening value</b>	Not available.
<b>Conjunctival oedema value</b>	Not available.
<b>Recover days</b>	Not available.
<b>Respiratory or skin sensitization</b>	
<b>Canada - Alberta OELs: Irritant</b>	
Phosphoric acid (CAS 7664-38-2)	Irritant
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Mutagenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Carcinogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
Not listed.	
<b>Reproductive toxicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Teratogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Non-hazardous by WHMIS/OSHA criteria.

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## 12. Ecological Information

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<b>Ecotoxicity</b>	See below		
<b>Ecotoxicological data</b>			
<b>Components</b>		<b>Species</b>	<b>Test Results</b>
Phosphoric acid (CAS 7664-38-2)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	LC50	Water flea ( <i>Daphnia magna</i> )	4.6 mg/L, 12 hr
Fish	LC50	Mosquitofish ( <i>Gambusia affinis affinis</i> )	3 - 3.5 mg/L, 96 hr
Urea (CAS 57-13-6)			
Crustacea	EC50	Daphnia	10000 mg/L, 48 Hours
<b>Aquatic</b>			
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	3910 mg/L, 48 hours
Fish	LC50	Giant gourami ( <i>Colisa fasciata</i> )	5 mg/L, 96 hours
<b>Persistence and degradability</b>	No data is available on the degradability of this product.		
<b>Bioaccumulative potential</b>			
<b>Mobility in soil</b>			
<b>Mobility in general</b>	No data available.		
<b>Other adverse effects</b>	Not available.		
	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation)		

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## 13. Disposal Considerations

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<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products**

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

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## 14. Transport Information

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**Transport of Dangerous Goods (TDG) Proof of Classification** In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue.

**U.S. Department of Transportation (DOT)**

**Basic shipping requirements:**

<b>UN number</b>	UN3264
<b>Proper shipping name</b>	Corrosive liquid, acidic, inorganic, n.o.s.
<b>Technical name</b>	Phosphoric acid
<b>Hazard class</b>	8
<b>Packing group</b>	II
<b>Marine pollutant</b>	Yes
<b>Special provisions</b>	386, B2, IB2, T11, TP2, TP27
<b>Packaging exceptions</b>	154
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

**Transportation of Dangerous Goods (TDG - Canada)**

**Basic shipping requirements:**

<b>UN number</b>	UN3264
<b>Proper shipping name</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
<b>Technical name</b>	Phosphoric acid
<b>Hazard class</b>	8
<b>Packing group</b>	II
<b>Special provisions</b>	16

**DOT**



**TDG**



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## 15. Regulatory Information

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**Canadian federal regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

**Export Control List (CEPA 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Not regulated.

**WHMIS 2015 Exemptions** Not applicable

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Phosphoric acid (CAS 7664-38-2) Listed.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**  
Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**US state regulations**

**US - California Hazardous Substances (Director's): Listed substance**

Phosphoric acid (CAS 7664-38-2) Listed.

**US - Illinois Chemical Safety Act: Listed substance**

Phosphoric acid (CAS 7664-38-2)

**US - Louisiana Spill Reporting: Listed substance**

Phosphoric acid (CAS 7664-38-2) Listed.

**US - Minnesota Haz Subs: Listed substance**

Phosphoric acid (CAS 7664-38-2) Listed.  
Urea (CAS 57-13-6) Listed.

**US - New Jersey RTK - Substances: Listed substance**

Phosphoric acid (CAS 7664-38-2)

**US - Texas Effects Screening Levels: Listed substance**

Phosphoric acid (CAS 7664-38-2) Listed.  
Urea (CAS 57-13-6) Listed.

**US. Massachusetts RTK - Substance List**

Phosphoric acid (CAS 7664-38-2)

**US. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Phosphoric acid (CAS 7664-38-2)

**US. Rhode Island RTK**

Phosphoric acid (CAS 7664-38-2)

**US. California Proposition 65**

Not Listed.

**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

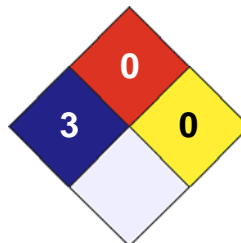
\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)



## 16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/	3
FLAMMABILITY		0
PHYSICAL HAZARD		0
PERSONAL PROTECTION		X



### Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

### Issue date

22-August-2017

### Version #

02

### Effective date

22-August-2017

### Prepared by

Dell Tech Laboratories, Ltd. Phone: (519) 858-5021

### Other information

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.