

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY
1.1 Product Identifier

Product Name: **BT Surface Disinfectant – DIN: 02335565**
 Chemical Family: N/Av
 CAS Number: N/Av

1.2 Relevant Identified Uses

Product Intended Uses: Disinfectant

1.3 Supplier Details

Name & Address: Evergreen Solutions
 64210, 393 Loop East
 Okotoks, AB T1S 0L1
 SDS Contact: hbrar@evergreensolutions.com
 Manufacturer Information: K-G Spray-Pak Inc.
 8001 Keele Street
 Vaughan, Ontario L4K 1Y8
 1-905-669-9855

1.4 Emergency Contact

Emergency Telephone: 1-613-996-6666 (CANUTEC) or 403-554-1402
 Opening Hours: 1-800-610-5907 (M-F, 8am-5pm, MST) or +1 403 554-1402 (24 hours)

SECTION 2: HAZARD IDENTIFICATION
2.1 Substance/Mixture Classification

Hazard Classification: Flammable Aerosol (Category 1)

2.2 Label Elements

Hazard Pictogram(s):



Signal Word: DANGER
 Hazard Statement(s): Extremely flammable aerosol.

Precautionary Statement(s)

Prevention: Wear protective gloves/ protective clothing/ eye protection/ face protection.
 Keep away from heat/sparks/open flames/hot surfaces – No smoking.
 Do not spray an open flame or other ignition source.
 Do not pierce or burn, even after use.

Response: N/Av
 Storage: Protect from sunlight. Do not exposed to temperatures exceeding 50°C (122°F).

Disposal: Dispose content/container to appropriate treatment and disposal plan in accordance with applicable laws and regulation, and product characteristic at time of disposal.

2.3 Other Hazards

Other Hazard Classification None known.

SECTION 3: COMPOSITION/INGREDIENT INFORMATION
3.1 Substances

Ingredient Name	Identifiers	% W/W
Ethanol	Cas No.: 67-17-5	15 – 40
Propane, 2-methyl	Cas No.: 75-28-5	10 – 30
2-Propanol, 1-methoxyl-	Cas No.: 107-98-2	1 – 5
Propane	Cas No.: 74-98-6	1-5
Morpholine	Cas No.: 110-91-8	0.1 – 1
Nitrous acid, sodium salt (1:1)	Cas No.: 7632-00-0	0.1 – 1

Note: All concentrations are percent by weight unless ingredients is a gas. Gas concentrations are in percent by volume.

SECTION 4: FIRST-AID MEASURES
4.1 Description of First Aid Measures

Eye Contact:	Check for and remove any contact lenses. Do not rub eyes. Immediately flush with warm running water, holding the eyelids apart and occasionally lifting the upper and lower eyelids, for 15 minutes. Call a physician if irritation develops.
Skin Contact:	Remove contaminated clothing and shoes, wash before reuse. Wash affected skin with soap and water or use a recognized skin cleanser. See physician if irritation develops.
Inhalation:	Remove affected victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion:	Rinse out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Call a POISON CENTER/doctor if you feel unwell.
First Aid Protection:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most Important Symptoms & Effects (Acute and Delayed)

Eye Contact:	No specific data.
Skin Contact:	No specific data.
Inhalation:	No specific data.

- Ingestion: No specific data.
- 4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed**
- Physician Notes: Treat symptomatically. Hydrogen peroxide at this concentration is a strong oxidant. Direct contact with the eye is likely to cause corneal damage especially if not washed immediately. Careful ophthalmologic evaluation is recommended, and the possibility of local corticosteroid therapy should be considered. Because of the likelihood of corrosive effects on the gastrointestinal tract after ingestion, and the unlikelihood of systemic effects, attempts evacuating the stomach via emesis induction or gastric lavage should be avoided. There is a remote possibility, however, that a nasogastric or orogastric tube may be required for the reduction of severe distension due to gas formation
- Specific Treatments: No specific treatment.

SECTION 5: FIRE-FIGHTING MEASURES

- 5.1 Extinguishing Media**
- Suitable Media: Use fire extinguishing media appropriate for surrounding materials.
- Unsuitable Media: Do not use water jet as an extinguisher, as this will spread the fire.
- 5.2 Special Hazards from Substance/Mixture**
- Hazards from substance: Vapors may travel considerable distance to a source of ignition and flash back.
- Hazardous Combustion Products: Not available.
- 5.3 Advice for Firefighters**
- Special Protective Actions: No specific data.
- Special Protective Equipment: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal Precautions, Protective Equipment and Emergency Procedures**
- Non-emergency Personnel: Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep up wind. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- Emergency Responders: Use personnel protection recommended in Section 8 to deal with the spillage. See also the information in "Non-emergency Personnel".
- 6.2 Environmental Precautions**
- Environmental Precautions Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
- 6.3 Methods and Materials of Containment and Cleanup**
- Small Spill: Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.

Large Spill:

Dike with earth, sand or inert sorbent material to contain spill. Remove liquid with compatible pumps or vacuum equipment. Place in suitable container for disposal. Flush area with water. Keep materials which can burn away from spilled materials. Spontaneous combustion hazard: combustible materials exposed to hydrogen peroxide should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that can dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood or other combustibles, can cause the material to ignite and result in a fire.

6.4 Reference to Other Sections

Additional Sections:

See Section 7 for handling and storage information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

SECTION 7: HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for Safe Handling

Protective Measures:

Keep away from heat, hot surfaces, sparks, open flames or other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not piercer burn, even after use. Empty containers may contain hazardous product residues. Keep the containers closed when not in use. Protect against physical damage. Use appropriate personnel protective equipment.

General Occupational
Hygiene Advice:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for Safe Storage and Incompatibilities

Safe Storage:

Pressurized container: protect from sunlight and do not exposed to temperatures exceeding 50°C. Do not pierce or burn, even after use.

Incompatibilities:

Aerosol Level 2

7.3 Specific End Use(s)

Recommendations:

When product is used in confined space, the use of proper ventilation is required.

Industrial Sector Specific
Solutions:

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control Parameters

Occupational Exposure Limits:

Ingredient	Type	Exposure Limits Values	Source
Ethanol	TWA	1000ppm 1880 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
Ethanol	15 min ACL	1250 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Ethanol	STEL	1000 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety & Health Act) (03 2011)
Ethanol	STEL	1000 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Ethanol	STEL	1000 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	8Hr ACL	1000 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Ethanol	TWA	1000 ppm 1880 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Ethanol	STEL	1000 ppm	US. ACGIH Threshold Limit Values (2009)
Propane, 2-methyl	STEL	1000 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (08 2017)
Propane, 2-methyl	8Hr ACL	1000 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15min ACL	1250 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Propane, 2-methyl	STEL	1000 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2018)
Propane, 2-methyl	STEL	1000 ppm	US. ACGIH Threshold Limit Values (03 2018)
2-Propanol, 1-methoxy-	STEL	150 ppm 553 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)



2-Propanol, 1-methoxy-	TWA STEL	50 ppm 75 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
2-Propanol, 1-methoxy-	TWA	50 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	100 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
	TWA	100 ppm; 369 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
2-Propanol, 1-methoxy-	TWA	50 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2013)
2-Propanol, 1-methoxy-	8Hr ACL	100 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15min ACL	150 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	STEL	100 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2013)
2-Propanol, 1-methoxy-	TWA	100 ppm; 369 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
	STEL	150 ppm; 553 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
2-Propanol, 1-methoxy-	TWA	50 ppm	US. ACGIH Threshold Limit Values (02 2013)
	STEL	100 ppm	US. ACGIH Threshold Limit Values (02 2013)
Propane	TWA	1000 ppm	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Propane	8Hr ACL	1000 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Propane	TWA	1000 ppm; 1800 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Propane	TWA	100 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical



	15min ACL	1250 ppm	Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Morpholine	TWA	20 ppm; 71 mg/m ³	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
Morpholine	TWA	20 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Morpholine	TWA	20 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Morpholine	TWA	20 ppm; 71 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Morpholine	15min ACL 8Hr ACL	30 ppm 20 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009) Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Morpholine	TWA	20 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
Morpholine	TWA	20 ppm	US. ACGIH Threshold Limit Values (2008)
2-Propanol, 2-methyl-	TWA	100 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
2-Propanol, 2-methyl-	TWA	100 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
2-Propanol, 2-methyl-	TWA	100 ppm; 303 mg/m ³	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
2-Propanol, 2-methyl-	8Hr ACL 15min ACL	100 ppm 125 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
2-Propanol, 2-methyl-	TWA	100 ppm; 303 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)



2-Propanol, 2-methyl-	TWA	100 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
2-Propanol, 2-methyl-	TWA	100 ppm	US. ACGIH Threshold Limit Values (2008)
1-Propanol, 2-methoxy-	TWA STEL	20 ppm 40 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
2-Pentanone, 4-methyl-	TWA STEL	50 ppm 75 ppm	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
2-Pentanone, 4-methyl-	8Hr ACL 15min ACL	50 ppm 75 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
2-Pentanone, 4-methyl-	TWA STEL	20 ppm 75 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
2-Pentanone, 4-methyl-	STEL	75 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
2-Pentanone, 4-methyl-	STEL TWA TWA	75 ppm 20 ppm 20 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011) Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
2-Pentanone, 4-methyl-	TWA STEL	50 ppm 75 ppm	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
2-Pentanone, 4-methyl-	STEL TWA	75 ppm 20 ppm	US. ACGIH Threshold Limit Values
Ethanol, 2-methoxy-	TWA	0.1 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ethanol, 2-methoxy-	TWA	0.1 ppm	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Ethanol, 2-methoxy-	8Hr ACL	5 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Ethanol, 2-methoxy-	TWA	0.1 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace



			Safety And Health Act) (03 2011)
Ethanol, 2-methoxy-	TWA	5 ppm	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Ethanol, 2-methoxy-	TWA 15min ACL	0.1 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (12 2007) Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Ethanol, 2-methoxy-	TWA	8 ppm	US. ACGIH Threshold Limit Values (2008)
1,2-Ethanediamine	TWA	10 ppm	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
1,2-Ethanediamine	TWA	10 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2-Ethanediamine	15min ACL	15 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
1,2-Ethanediamine	TWA 8Hr ACL	10 ppm	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
1,2-Ethanediamine	TWA	10 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
1,2-Ethanediamine	TWA	10 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
1,2-Ethanediamine	TWA	10 ppm	US. ACGIH Threshold Limit Values (2008)
Morpholine, 4-ethyl-	TWA	5 ppm	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
Morpholine, 4-ethyl-	8Hr ACL	5 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Morpholine, 4-ethyl-	TWA	5 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
Morpholine, 4-ethyl-	TWA	5 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)



Morpholine, 4-ethyl-	TWA	5 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Morpholine, 4-ethyl-	TWA	5 ppm	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
	15min ACL	8 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Morpholine, 4-ethyl-	TWA	5 ppm	US. ACGIH Threshold Limit Values (2008)
Silica - Total	TWA	4 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Silica - Respirable.	TWA	1.5 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Silica – Respirable Dust	TWA	6 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Sodium hydroxide (Na(OH))	Ceiling	2mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Sodium hydroxide (Na(OH))	Ceiling	2 mg/m3	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
Sodium hydroxide (Na(OH))	Ceiling	2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Sodium hydroxide (Na(OH))	Ceiling	2 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
Sodium hydroxide (Na(OH))	Ceiling	2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (12 2007)
Sodium hydroxide (Na(OH))	Ceiling	2 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Sodium hydroxide (Na(OH))	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values (2008)
Phenol, 2,6-bis(1,1-	TWA	10 mg/m3	Canada. Alberta OELs (Occupational Health & Safety



dimethylethyl)-4-methyl-			Code, Schedule 1, Table 2) (10 2006)
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-Vapor and aerosol, inhalable.	TWA	2 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-Inhalable fraction and vapor	8Hr ACL 15min ACL	2 mg/m ³ 4 mg/m ³	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-Inhalable fraction and vapor	TWA	2 mg/m ³	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	TWA	2 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	TWA	10 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-Inhalable fraction and vapor.	TWA	2 mg/m ³	US. ACGIH Threshold Limit Values (2008)

Recommended

Monitoring Procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference to national guidance documents for methods for the determination of hazardous substances will be required.

DNELs/DMELs:

No DNELs/DMELs available.

PNECs:

No PNECs available.

8.2 Exposure Controls

Engineering Controls:

Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Make up air should always be supplied to balance air exhausted (either generally or locally). Ventilation required when spraying or applying in a confined area. Ventilation should be explosion proof. Eliminate ignition sources.

Individual Protection Measures

Hygiene Measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated



Eye/Face Protection:	clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection. Chemical goggles; also wear a face shield if splashing hazard exists.
<u>Skin Protection</u>	
Protective Handwear:	Natural rubber gloves. Butyl rubber gloves. Nitrile gloves. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body Protection:	Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Impervious boots of chemically resistant material should be worn at all times. Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.
Other Skin Protection:	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Respiratory Protection:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental Exposure Controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
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9.1 Information on Basic Physical and Chemical Properties

Appearance

Physical State:	Liquid
Color:	N/Av
Odor:	N/Av
Odor Threshold:	N/E
pH Factor:	< 2
Melting/Freezing Point:	N/Av
Boiling Point (°C):	70.79°C (159.42°F)
Flash Point:	-104.4°C (-155.92°F)
Evaporation Rate:	N/E



Flammability:	Upper Limit: 13.7% (V) Lower Limit: 4.1% (V)
Explosive Limits:	None
Vapor Pressure:	N/Av
Vapor Density (air = 1):	N/Av
Relative Density:	N/Av
Solubility(ies):	N/Av
Partition Coefficient:	N/Av
Auto-ignition Temperature:	N/E
Decomposition Temp.:	N/Av
Viscosity:	N/Av
Explosive Properties:	N/E
Oxidizing Properties:	N/Av

9.2 Other Information

Solubility in Water:	N/Av
Pour Point:	N/Av

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:	No specific data.
10.2 Chemical Stability:	Stable under normal conditions.
10.3 Possibility of Hazardous Reactions:	No specific data.
10.4 Conditions to Avoid:	Avoid heat or contamination.
10.5 Incompatible Materials:	No specific data.
10.6 Hazardous Decomposition Product(s):	No specific data.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Toxicological Effects Information

Acute Toxicity

Oral:	ATEmix: 70,256.42 mg/kg
Dermal:	ATEmix: 151,478.79 mg/kg
Inhalation:	Not classified for acute toxicity on available data.

Specified Substance(s):	Ethanol	LC50 (Rat): 124.7 mg/l LC50: > 5mg/l
	2-Propanol, 1-methoxyl-	LC50: > 100 mg/l LC50: > 100 mg/l
	Propane	LC50: > 100 mg/l LC50: > 100 mg/l
	Morpholine	LC50: > 24 mg/l LC50: > 5 mg/l LC50 (Rat): 24 mg/l
	Nitrous acid, sodium salt	LC50 (Rat): 0.0951 mg/l

Repeated Dose Toxicity:

Ethanol	NOAEL (Rat Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study
Propane, 2-methyl-	NOAEL (Rat(Female, Male), Inhalation, >= 42 d): 16,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 21,394 mg/m3 Inhalation Experimental result, Key study
2-Propanol, 1-methoxyl-	NOAEL (Rat(Female, Male), Inhalation, 13 Weeks): 1,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rabbit(Female, Male), Dermal, 3 Months): 4,600 mg/kg Dermal Experimental result, Supporting study
Propane	NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study
Morpholine	NOAEL (Rat(Female, Male), Inhalation): 36 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female), Oral, 56 d): 500 mg/kg Oral Experimental result, Key study
Nitrous acid, sodium salt	LOAEL (Rat(Male), Oral, 14 Weeks): 115 mg/kg Oral Experimental result, Weight of Evidence study NOAEL (Rat(Male), Oral, 2 yr): 10 mg/kg Oral Experimental result, Supporting study

Skin Irritation/Corrosion

Ethanol:	in vivo (Rabbit): Not irritant Experimental result, Key study
2-Propanol, 1-methoxy-:	in vivo (Rabbit): Not irritant Experimental result, Key study
Morpholine:	in vivo (Rabbit): Corrosive Experimental result, Key study
Nitrous acid, sodium salt:	in vivo (Rabbit): Not irritant Experimental result, Weight of Evidence study

Serious Eye Damage/Irritation

Ethanol:	Rabbit, 1 - 24 hrs: Not irritating
2-Propanol, 1-methoxy-:	Rabbit, 24 - 72 hrs: Not irritating

Sensitization

Ethanol:	Skin sensitization: in vivo (Guinea pig): Non sensitizing
2-Propanol, 1-methoxy-:	Skin sensitization: in vivo (Guinea pig): Non sensitizing
Morpholine:	Skin sensitization: in vivo (Guinea pig): Non sensitizing

Mutagenicity

Conclusion/Summary:	No adverse mutagenic effects are anticipated.
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Carcinogenicity

Conclusion/Summary:	No carcinogenic components identified.
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Reproductive Toxicity

Conclusion/Summary:	No specific data.
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Teratogenicity

Conclusion/Summary:	No adverse teratogenic effects are anticipated.
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Specific Target Organ Toxicity – Single Exposure

Conclusion/Summary:	2-Propanol, 1-methoxy-	Narcotic effect. - Category 3 with narcotic effects
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Specific Target Organ Toxicity – Single Exposure


Conclusion/Summary: Not available.
Aspiration Hazard
 Conclusion/Summary: Not available.
 Likely Routes of Exposure: Oral, Dermal, Inhalation, Ingestion.

Potential Acute Health Effects

Eye Contact: No specific data.
 Inhalation: No specific data.
 Skin Contact: No specific data.
 Ingestion: No specific data.

Physical, Chemical and Toxicological Symptoms

Eye Contact: No specific data.
 Inhalation: No specific data.
 Skin Contact: No specific data.
 Ingestion: No specific data.

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

Short Term Exposure

Potential Immediate Effects: Not available.
 Potential Delayed Effects: No specific data.
 Other information: Not available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

FISH - Acute

Ethanol	LC 50 (Pimephales promelas, 96 h): 15.3 g/l Experimental result, Key study
2-Propanol, 1-methoxyl-	LC 50 (Pimephales promelas, 96 h): 20,800 mg/l Experimental result, Key study
Propane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Morpholine	LC 50 (Oncorhynchus mykiss, 96 h): 180 mg/l Experimental result, Key study
Nitrous acid, sodium salt	LC 50 (Paralichthys orbignyanus, 96 h): 118.3 mg/l Experimental result, Supporting study

AQUATIC INVERTEBRATES - Acute

Ethanol	LC 50 (Ceriodaphnia dubia, 48 h): 5,012 mg/l Experimental result, Key study
2-Propanol, 1-methoxyl-	EC 50 (Daphnia magna, 48 h): >= 1,000 mg/l Experimental result, Supporting study
Morpholine	EC 50 (Daphnia magna, 48 h): 45 mg/l Experimental result, Key study
Nitrous acid, sodium salt	EC 50 (48 h): Estimated 0.5 mg/l EC 50 (Daphnia magna, 48 h): 15.4 mg/l Experimental result, Key study

FISH - Chronic

Ethanol	NOAEL (Oryzias latipes): 7,900 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study
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Nitrous acid, sodium salt	NOAEL (Cyprinus carpio): 1.05 mg/l Experimental result, Key study
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AQUATIC INVERTEBRATES – Chronic

Ethanol	LC 50 (Daphnia magna): 454 mg/l Experimental result, Key study NOAEL (Daphnia magna): 9.6 mg/l Experimental result, Key study
Morpholine	EC 50 (Daphnia magna): 12 mg/l Experimental result, Key study NOAEL (Daphnia magna): 5 mg/l Experimental result, Key study

12.2 Persistence & Degradability:

Ethanol	95 % Detected in water. Experimental result, Key study
Propane, 2-methyl-	100 % Detected in water. QSAR, Weight of Evidence study
Propane	100 % (385.5 h) Detected in water. Experimental result, Key study 50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study
Morpholine	> 90 % (24 h) Sediment Experimental result, Key study 80 - 94 % (24 h) Sediment Experimental result, Key study
Nitrous acid, sodium salt	95 % (10 d) The 10-day window requirement is fulfilled.

12.3 Bioaccumulative Potential:

Ethanol	Cyprinus carpio, Bioconcentration Factor (BCF): 4.5 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Supporting study
Morpholine	Cyprinus carpio, Bioconcentration Factor (BCF): < 2.8 Aquatic sediment Experimental result, Key study

12.4 Mobility in Soil:

Not Available.

12.5 PBT and vPvB Assessment:

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other Adverse Effects:

None.

SECTION 13: DISPOSAL CONSIDERATIONS

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste Treatment

Product

Disposal Methods:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a

licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous Waste: The classification of the product may meet the criteria for a hazardous waste.

Packaging

Disposal Methods: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special Precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

		ADR	DOT	TDG	IMO/IMDG	ICAO/IATA
14.1	UN Number	1950	1950	1950	1950	1950
14.2	UN Shipping Name	Aerosol, flammable	Aerosol, flammable	Aerosol, flammable	Aerosol, flammable	Aerosol, flammable
14.3	Transport Hazard Class(es)	Class 2.1	Class 2.1	Class 2.1	Class 2	Class 2.1
14.4	Packaging Group	-	-	-	-	-
14.5	Environmental Hazards	No	No	No	No	No
	Marine Pollutant	N/Ap	N/Ap	No	No	No
	Special User Precaution	N/Ap	N/Ap	Not regulated	Not regulated	Not regulated

14.6 Special User Precautions: **Transport within user’s premises:** Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Bulk Transportation: *Transportation in bulk accordance to Annex II of Marpol 73/78 and IBC Code.*

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health & Environmental Regulations/Legislation

US Federal Regulations

OSHA

This material is classified as hazardous under OSHA regulations (29 CFR 1910.1200) (HazCom 2012).

Hazardous classification:



Serious Eye Damage/Eye Irritation (Category 1)
 Oxidizing Liquids (Category 2)
 Skin Corrosion/Irritation (Category 2B)
 Specific Target Organ Toxicity – Single Exposure (Category 3)
 Acute toxicity – Oral (Category 4)
 Acute toxicity – Inhalation (Category 4)
 All chemicals listed.

**USA TSCA
 SARA TITLE III**

Sec. 302.
 Sec. 313.

40 CFR 372 This substance contains no materials subject to the reporting requirements of SARA (III) Section 313.

Sec. 311 and 312.

40 CFR 370 MSDS Requirements. Hazardous Classes: Immediate acute health hazard.

US State Right to Know Law

Proposition 65 California Safe Drinking Water and Toxic Enforcement Act of 1986: This product is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels under which would be subject to the proposition.

MA Right to Know List:
 New Jersey Right to Know List:
 Pennsylvania Right to Know List:

Listed.
 Listed.
 Listed.

International Inventories

Canada Federal Regulations:

Lists of Toxic Substances (CEPA, Schedule 1): 1-Propanol, 2-methoxy-; Ethanol, 2-methoxy-
Export Control List (CEPA 1999, Schedule 3): Ethanol, 2-methoxy-

National Pollutant Release Inventory (NPRI):

Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements:

NPRI PT5	Ethanol
	Propane, 2-methyl-
	Propane
	2-Pentanone, 4-methyl-

Canada. National Pollutant Release Inventory (NPRI) (Schedule 1, Parts 1-4): Not regulated.

Greenhouse Gases:
 Controlled Drugs & Substances Act:

Not regulated.

CA CDSI	Not regulated.
CA CDSII	Not regulated.
CA CDSIII	Not regulated.
CA CDSIV	Not regulated.
CA CDSV	Not regulated.
CA CDSVII	Not regulated.
CA CDSVIII	Not regulated.



Canada:	All components of this product comply with the inventory requirements administrated by the <i>Domestic Substances List (DSL)</i> .
Canada Regulatory Information:	WHMIS Classification: The product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.
Australia AICS	On or in compliance with the inventory
Ontario Inventory	Not in compliance with the inventory
China Inv. Existing Chemical Substances	On or in compliance with the inventory
Japan	ENCS List: Not in compliance with the inventory ISHL List: Not in compliance with the inventory Pharmacopoeia List: Not in compliance with the inventory
Korea Existing Chemicals Inv. (KECI)	On or in compliance with the inventory
Mexico INSQ	Not in compliance with the inventory
New Zealand Inv. Of Chemicals	On or in compliance with the inventory
Philippines PICCS	On or in compliance with the inventory
Taiwan Chemical Substance Inv.	On or in compliance with the inventory
EU Regulations	European Union (EINECS/ELINCS): All chemicals listed.
15.2 Chemical Safety Assessment:	No chemical safety assessment has been carried out for mixture by the supplier.

SECTION 16: OTHER INFORMATION

Abbreviations and Acronyms

ATE:	Acute Toxicity Estimate
CLP:	Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL:	Derived Minimal Effect Level
DNEL:	Derived No Effect Level
EUH Statement:	CLP-specific Hazard statement
PBT:	Persistent, Bioaccumulative and Toxic
PNEC:	Predicted No Effect Concentration
RRN:	REACH Registration Number
vPvB:	Very Persistent and Very Bioaccumulative

Procedure Used to Derive the Classification According to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flammable Aerosol (Category 1)	On basis of test data.

Date of Issue/Revision:	March 22, 2020
Replaces:	
Prepared By:	Evergreen Solutions Corp.

Notice to Reader



To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

<< N/E = Not established N/AP = Not Applicable N/AV = Not Available C.O.C = Cleveland Open Cup >>