YOUR PARTNER FOR THE BEST QUALITY

TEST REPORT

우 150-038 서울특별시 영등포구 버드나루로 155 (영등포동8가) TEL (02)2164-0011 FAX (02)2634-1008

성적서번호 : TAK-000028
대 표 자 : 김은숙
업 체 명 : 나무와사람들
주 소 : 경기도 과천시 과천대로 643(과천동, 지상2층, 지하1층)

접 수 일 자 : 2014년 01월 02일
시험완료일자 : 2014년 01월 07일

시 료 명 : 수성바니쉬(LNL Wood Finish)

시 험 결 과

시험항목	단위	시료구분	결과치	시험방법
VOCs	g/L	-	0.80	국립환경과학원 고시 제 2012-35호

- Method Detection Limit -
VOCs(Volatile Organic Compounds) : 0.01 g/L

용 도 : 품질관리용

비 고 : 1. 이 성적서는 의뢰자가 제시한 시료 및 시료명으로 시험한 결과로서 전체 제품에 대한 품질을 보증하지는 않습니다.
2. 이 성적서는 홍보, 선전, 광고 및 소송용 등으로 사용될 수 없으며, 용도 이외의 사용을 금합니다.

Kim Jaemin

작성자 : 김재민
Tel : 031-999-3116

Hong Sungtaeg

기술책임자 : 홍성택
E-mail : prohong@ktr.or.kr

2014년 01월 07일

한국화학융합시험연구원장

전자문서본(Electronic Copy)

YOUR PARTNER FOR THE BEST QUALITY

TEST REPORT

우 150-038 서울특별시 영등포구 버드나루로 155 (영등포동8가) TEL (02)2164-0011 FAX (02)2634-1008

성적서번호 : TAK-000029
대 표 자 : 김은숙
업 체 명 : 나무와사람들
주 소 : 경기도 과천시 과천대로 643(과천동, 지상2층, 지하1층)

접 수 일 자 : 2014년 01월 02일
시험완료일자 : 2014년 01월 07일

시 료 명 : 수성바니쉬(LNL Spar Varnish)

시 험 결 과

시험항목	단위	시료구분	결과치	시험방법
VOCs	g/L	-	1.46	국립환경과학원 고시 제 2012-35호

- Method Detection Limit -
VOCs(Volatile Organic Compounds) : 0.01 g/L

용 도 : 품질관리용

비 고 : 1. 이 성적서는 의뢰자가 제시한 시료 및 시료명으로 시험한 결과로서 전체 제품에 대한 품질을 보증하지는 않습니다.
2. 이 성적서는 홍보, 선전, 광고 및 소송용 등으로 사용될 수 없으며, 용도 이외의 사용을 금합니다.

Kim Jaemin

작성자 : 김재민
Tel : 031-999-3116

Hong Sungtaeg

기술책임자 : 홍성택
E-mail : prohong@ktr.or.kr

2014년 01월 07일

한국화학융합시험연구원장

전자문서본(Electronic Copy)

Section 1: Identification

Product Name:	**Last n Last Marine & Door Spar Varnish Gloss**
Product Code:	9400
Product Use:	Wood Finish
Manufacturer:	Absolute Coatings, Inc. 38 Portman Road New Rochelle NY 10801
Phone Number:	(914) 636-0700

EMERGENCY PHONE # FOR CHEMICAL SPILLS, LEAKS, OR EXPOSURE:
CHEMTEL: 800-255-3924 (24 HRS.) **Nat'l. Poison Control Center: 800-222-1222**

Section 2: Hazards Identification

NFPA (USA)	WHMIS Classification (Canada)	Transport Symbol	Personal Protective Equipment
	 **D2B**	**Ship as a Consumer Commodity**	

Emergency Overview:	**Appearance, Color and Odor:** Golden Brown Liquid, Mild Amine Odor; Eye Irritant, Skin Irritant, Respiratory Irritant.
	USA: This product is a hazardous material as defined by 29 CFR1910.1200, OSHA Hazard Communication Evaluation
	Canada: This is a controlled product under WHMIS.
Potential Health Effects:	**ACUTE (short term): see Section 8 for exposure controls**
Relevant Route(s) of Exposure:	Inhalation, Ingestion, Skin contact, Eye contact
Inhalation:	Mists and vapors from this product are irritating to the mucous membranes of the respiratory system. Symptoms of extreme overexposure would probably include headache, nausea, light
Ingestion:	Ingestion may cause irritation to the mouth and digestive system. May cause vomiting. Harmful if aspirated into the lungs when vomiting occurs. Symptoms of extreme overexposure would probably include headache, nausea, light-headedness, drowsiness, loss of coordination and possibly unconsciousness
Skin:	Irritating to the skin. Some components may be absorbed through the skin. Widespread skin contact may result in absorption of harmful amounts. Symptoms of extreme overexposure would probably include headache, nausea, light-headedness, drowsiness, loss of coordination
Eye:	Direct contact with the eyes is expected to cause moderate to severe irritation.

Section 2: Hazards Identification - Continued

	CHRONIC (long term): see Section 11 for additional toxicological data
Medical Conditions Aggravated by Exposure:	Skin contact may aggravate an existing dermatitis. Repeated or prolonged skin contact may cause dermatitis, with redness, blisters, cracking and swelling of the skin
Interactions With Other Chemicals:	Skin contact may enhance the absorption through the skin of other chemical substances.
Potential Environmental Effects:	Not available. Do not allow the material to be released into the environment.

Section 3: Composition / Information on Ingredients

Hazardous Ingredients:

Chemical Name	**CAS No.**	**Wt.%**
Urethane polymer	No specific CAS	15 - 40
1-methyl-2-pyrrolidone	872-50-4	3 – 7.5
2-dimethylaminoethanol	108-01-0	0.5 - 1.5
Dipropylene glycol monomethyl ether	64590-94-8	0.5 – 1.5

Section 4: First Aid Measures

Inhalation:	If symptoms develop, remove source of contamination or have victim move to fresh air Obtain medical advice immediately.
Eye Contact:	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes while holding the eyelids open. If a contact lens is present, do not delay irrigation or attempt to remove the lens. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical advice immediately.
Skin Contact:	As quickly as possible remove contaminated clothing, shoes, and leather goods (e.g. watchbands and belts). Immediately flush with lukewarm, gently flowing water for 15-20 minutes. Completely decontaminate clothing, shoes and leather goods before reuse or discard. Obtain medical advice immediately.
Ingestion:	Immediately obtain medical attention. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration.
Notes to Physician:	Not Available

Section 5: Fire Fighting Measures

Flammable Properties:	Product may burn after water has evaporated if involved in a fire but does not ignite readily.
Suitable extinguishing Media:	Use water, fog, foam, carbon dioxide, dry chemical extinguishing agents. Use water spray to cool fire exposed containers.
Unsuitable extinguishing Media:	Not Available
Explosion Data:	
Sensitivity to Mechanical Impact:	Not Available.
Sensitivity to Static Discharge:	Not Available.
Specific Hazards arising from the Chemical:	Not Available.
Protective Equipment and precautions for firefighters:	As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.
NFPA	
Health:	2
Flammability:	0
Instability:	0

Section 6: Accidental Release Measures

Personal Precautions:	Wear all skin, eye and respiratory personal protective equipment as indicated in Section 8.
Environmental Precautions:	Prevent material from contaminating soil and from entering sewers or waterways. Do not drain into sewers and drains.
Methods for Containment:	Isolate the spill area. Shut off the leak if it is safe to do so. Contain the liquid immediately using a suitable inert absorbent (sand, clay, vermiculite).
Methods for Clean-up:	Scoop up contaminated absorbents and place into suitable disposal containers. Collect all spilled material, contaminated absorbents and contaminated water for proper treatment or disposal.

Section 7: Handling and Storage

Handling:	This product may be difficult to remove from the skin, without injury, if allowed to dry. Avoid contact with eyes, skin and clothing. Wear protective goggles and gloves. Avoid breathing vapors or mists. Observe the recommended exposure limits (Section 8). See Section 8 for Personal Protective Clothing and Equipment.
Storage:	Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. Store in a cool, dry, well ventilated area away from direct sunlight, heat, sparks and open flame. Protect from freezing. Keep container closed when not in use.

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits - Consult local authorities for acceptable exposure limits.

Ingredient	ACGIH TLV (8-hr. TWA)	U.S. OSHA PEL (8-hr. TWA)	Ontario (Canada) TWAEV
Urethane polymer	Not established	Not established	Not established
1-methyl-2-pyrrolidone	Not established	Not established	400 mg/m3
2-dimethylaminoethanol	Not established	Not established	3 ppm (11 mg/m3) STEV 6 ppm (22 mg/m3)
Dipropylene glycol monomethyl ether	100 ppm (606 mg/m3); skin STEL 150 ppm (909 mg/m3)	100 ppm (606 mg/m3); skin	100 ppm (605 mg/m3) STEV 150 ppm (910 mg/m3)

Workplace Environmental Exposure Level Guides (WEELs)/American Industrial Hygiene Association (AIHA) 2005:

1-methyl-2-pyrrolidone:	10 ppm, skin.

The word "skin" indicates that the material might be absorbed in toxicologically significant amounts through the skin. Therefore, skin contact can contribute to the overall exposure and invalidate the TWA exposure evaluations.

Exposure Controls

Engineering Controls:	General ventilation is adequate. In workplaces where a fine mist is created in an enclosed space, provide local exhaust ventilation.
Personal Protection:	
Eye/Face Protection:	Wear chemical splash goggles.
Skin Protection:	Wear impermeable protective gloves and clean body-covering to prevent contact with the skin. Neoprene or nitrile protective gloves are recommended. Impermeable neoprene or nitrile apron and arm covers should be worn when needed to prevent skin contact.
Respiratory Protection:	Not required for normal use. Wear a NIOSH approved respiratory for organic vapors, mists and fumes during spill clean-up, in poorly ventilated areas or when occupational exposure limits are exceeded. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or Canadian Standards Association (CSA) Standard Z94.4-2002 must be followed whenever workplace conditions warrant a respirator's use.
Other Protective Equipment:	Not applicable
General Hygiene Measures:	Remove contaminated clothing promptly. Launder contaminated clothing before re-wearing or discard. Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping.

Section 9: Physical and Chemical Properties

Physical State:	Liquid	**Flash Point & method:**	95.6°C (204°F) Pensky-Martens Closed Tester
Appearance, Color and Odor:	Milky-amber, mild amine odor.	**Autoignition Temperature:**	Not applicable
Odor Threshold:	Not available	**Flammability Limits in Air:**	Not available
pH:	7.5-9.0	**Vapor Pressure:**	Not available
Relative density: (water = 1)	1.02 – 1.04	**Vapor Density: (Air = 1)**	Not available
Partition coefficient: (n-octanol/water)	80cps-200cps	**Evaporation Rate: (n-Butyl Acetate = 1)**	Not available
Solubility:	Not available	**Boiling Point/Range:**	100°C (212°F)
Viscosity:		**Melting Point:**	<0°C (<32°F)
Decomposition Temperature:	Miscible with water	**VOC grams/Liter**	<275

Section 10: Stability and Reactivity

Chemical Stability:	Stable under normal conditions
Conditions to Avoid:	Not Available
Incompatible Materials:	Strong oxidizing agents, Nitrates.
Hazardous Decomposition Products:	Thermal decomposition may generate harmful carbon oxides and nitrogen oxides..
Possibility of Hazardous Reactions:	2-dimethylaminoethanol may react with nitrites to form carcinogenic nitrosamines

Section 11: Toxicological Information

Acute Toxicity Data - Acute oral, dermal and inhalation toxicity data are not available for the mixture. Acute toxicity data for the primary components are listed below:

	LD_{50} Oral (mg/kg)	**LD_{50} Dermal (mg/kg)**	**LC_{50} Inhalation (mg/ m_3 ; 4 hrs.)**
Urethane polymer	Not available	Not available	Not available
1-methyl-2-pyrrolidone	3 914 (rat)	8 000 (rabbit)	Not available
2-dimethylaminoethanol	2 000 (rat)	1 216 (rabbit)	1 641 ppm (rat)
Dipropylene glycol monomethyl ether	5 220 (rat)	Not available	Not available

Section 11: Toxicological Information - Continued

Chronic Toxicity Data Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.

	ACGIH	IARC	NTP	OSHA
Urethane polymer	Not listed	Not listed	Not listed	Not listed
1-methyl-2-pyrrolidone	Not listed	Not listed	Not listed	Not listed
2-dimethylaminoethanol	Not listed	Not listed	Not listed	Not listed
Dipropylene glycol monomethyl ether	Not listed	Not listed	Not listed	Not listed

ACGIH: (American Conference of Governmental Industrial Hygienists)
IARC: (International Agency for Research on Cancer)
NTP: (National Toxicity Program)
OSHA: (US Occupational Safety and Health Administration)

Irritation:	Irritating to the eyes, respiratory system and skin.
Corrosivity:	Not applicable
Sensitization:	2-dimethylaminoethanol may cause respiratory sensitization reactions in sensitized individuals. There is limited evidence of respiratory sensitization in humans
Neurological Effects:	Symptoms of extreme overexposure would probably include headache, nausea, light-headedness, drowsiness, loss of coordination and possibly unconsciousness.
Genetic Effects:	Not available
Reproductive Effects: **Carcinogenicity:**	Not available This preparation does not contain any component that is considered a human carcinogen by IARC (International Agency for Research on Cancer), ACGIH (American Conference of Governmental Industrial Hygienists, OSHA or NTP (National Toxicology Program).
Developmental Effects:	No human information available. Positive results in animal studies have occurred at maternally toxic doses, or by routes of administration (injection) unlikely to be encountered in occupational setting.
Target Organ Effects:	Very high concentrations of Dipropylene glycol monomethyl ether may cause liver or kidney injury.

Section 12: Ecological Information

Ecotoxicity:	Not Available
Persistence/Degradability:	Not Available
Bioaccumulation/Accumulation:	Not available
Mobility:	Not available

Section 13: Disposal Considerations

Waste Disposal Method:	Do NOT dump into any sewers, on the ground or into any body of water. Store material for disposal as indicated in Section 7 Handling and Storage.
US EPA Waste Number:	Dispose of in accordance with local, state and federal laws and regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.
Canada:	Dispose of in accordance with local, provincial and federal laws and regulations.

Section 14: Transport Information

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

Proper Shipping Name:	Paint
Hazard Class:	None
UN Number:	None
Packaging Group:	None

U.S. Hazardous Materials Regulation (DOT 49CFR):	Not Regulated.
Canadian Transportation of Dangerous Goods (TDG):	Not Regulated.
IMDG:	Not Regulated.
Marine Pollutants:	Not Applicable.
ICAO/IATA:	Not Regulated.

Section 15: Regulatory Information

USA	
TSCA Status:	All ingredients in the product are listed on the TSCA inventory.
SARA Title III Sec. 302/304: Sec: 311/312: Sec. 313: CERCLA RQ:	 None Acute N-methyl-2-pyrrolidone (872-50-4) 1% de minimis concentration None
California Prop 65:	This product contains a chemical known to State of California to cause cancer or birth defects or other reproductive harm.
Canada	This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the SDS contains all the information required by the *Controlled Products Regulations*.
WHMIS Classification: (for workplace exposures)	D2B – Other Toxic Effects– Due to eye, respiratory and skin irritation.
New Substances Notification Regulations:	All ingredients in the product are listed on Canada's Domestic Substances List (DSL).
NPRI Substances:	N-methyl-2-pyrrolidone (872-50-4) is a NPRI reportable substance.

Section 16: Other Information

Preparation Information:

Revision Date:	February 2011
Prepared by:	Absolute Coatings, Inc
Disclaimer:	While Absolute Coatings, Inc believes that the data set forth herein is accurate, as of the date hereof, Absolute Coatings makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data is offered solely for your consideration, investigation and verification.
Manufacturer Disclaimer:	The information and recommendations set forth are made in good faith and believed to be accurate at the date of preparation.

Section 1: Identification

Product Name:	**Last n Last Marine & Door Spar Varnish Satin 275 Voc**
Product Code:	9410
Product Use:	Wood Finish
Manufacturer:	Absolute Coatings, Inc. 38 Portman Road New Rochelle NY 10801
Phone Number:	(914) 636-0700

EMERGENCY PHONE # FOR CHEMICAL SPILLS, LEAKS, OR EXPOSURE:
CHEMTEL: 800-255-3924 (24 HRS.) **Nat'l. Poison Control Center: 800-222-1222**

Section 2: Hazards Identification

NFPA (USA)	WHMIS Classification (Canada)	Transport Symbol	Personal Protective Equipment
	 **D2B**	**Ship as a Consumer Commodity**	

Emergency Overview:	**Appearance, Color and Odor:** Golden Brown Liquid, Mild Amine Odor; Eye Irritant, Skin Irritant, Respiratory Irritant.
	USA: This product is a hazardous material as defined by 29 CFR1910.1200, OSHA Hazard Communication Evaluation
	Canada: This is a controlled product under WHMIS.
Potential Health Effects:	**ACUTE (short term): see Section 8 for exposure controls**
Relevant Route(s) of Exposure:	Inhalation, Ingestion, Skin contact, Eye contact
Inhalation:	Mists and vapors from this product are irritating to the mucous membranes of the respiratory system. Symptoms of extreme overexposure would probably include headache, nausea, light
Ingestion:	Ingestion may cause irritation to the mouth and digestive system. May cause vomiting. Harmful if aspirated into the lungs when vomiting occurs. Symptoms of extreme overexposure would probably include headache, nausea, light-headedness, drowsiness, loss of coordination and possibly unconsciousness
Skin:	Irritating to the skin. Some components may be absorbed through the skin. Widespread skin contact may result in absorption of harmful amounts. Symptoms of extreme overexposure would probably include headache, nausea, light-headedness, drowsiness, loss of coordination
Eye:	Direct contact with the eyes is expected to cause moderate to severe irritation.

Section 2: Hazards Identification - Continued

	CHRONIC (long term): see Section 11 for additional toxicological data
Medical Conditions Aggravated by Exposure:	Skin contact may aggravate an existing dermatitis. Repeated or prolonged skin contact may cause dermatitis, with redness, blisters, cracking and swelling of the skin
Interactions With Other Chemicals:	Skin contact may enhance the absorption through the skin of other chemical substances.
Potential Environmental Effects:	Not available. Do not allow the material to be released into the environment.

Section 3: Composition / Information on Ingredients

Hazardous Ingredients:

Chemical Name	**CAS No.**	**Wt.%**
Urethane polymer	No specific CAS	15 - 40
1-methyl-2-pyrrolidone	872-50-4	3 – 7.5
2-dimethylaminoethanol	108-01-0	0.5 - 1.5
Dipropylene glycol monomethyl ether	64590-94-8	0.5 – 1.5
Silicon Dioxide	7631-86-9	.05-2.0

Section 4: First Aid Measures

Inhalation:	If symptoms develop, remove source of contamination or have victim move to fresh air. Obtain medical advice immediately.
Eye Contact:	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes while holding the eyelids open. If a contact lens is present, do not delay irrigation or attempt to remove the lens. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical advice immediately.
Skin Contact:	As quickly as possible remove contaminated clothing, shoes, and leather goods (e.g. watchbands and belts). Immediately flush with lukewarm, gently flowing water for 15-20 minutes. Completely decontaminate clothing, shoes and leather goods before reuse or discard. Obtain medical advice immediately.
Ingestion:	Immediately obtain medical attention. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration.
Notes to Physician:	Not Available

Section 5: Fire Fighting Measures

Flammable Properties:	Product may burn after water has evaporated if involved in a fire but does not ignite readily.
Suitable extinguishing Media:	Use water, fog, foam, carbon dioxide, dry chemical extinguishing agents. Use water spray to cool fire exposed containers.
Unsuitable extinguishing Media:	Not Available.
Explosion Data:	
Sensitivity to Mechanical Impact:	Not Available.
Sensitivity to Static Discharge:	Not Available.
Specific Hazards arising from the Chemical:	Not Available.
Protective Equipment and precautions for firefighters:	As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.
NFPA	
Health:	2
Flammability:	0
Instability:	0

Section 6: Accidental Release Measures

Personal Precautions:	Wear all skin, eye and respiratory personal protective equipment as indicated in Section 8.
Environmental Precautions:	Prevent material from contaminating soil and from entering sewers or waterways. Do not drain into sewers and drains.
Methods for Containment:	Isolate the spill area. Shut off the leak if it is safe to do so. Contain the liquid immediately using a suitable inert absorbent (sand, clay, vermiculite).
Methods for Clean-up:	Scoop up contaminated absorbents and place into suitable disposal containers. Collect all spilled material, contaminated absorbents and contaminated water for proper treatment or disposal.

Section 7: Handling and Storage

Handling:	This product may be difficult to remove from the skin, without injury, if allowed to dry. Avoid contact with eyes, skin and clothing. Wear protective goggles and gloves. Avoid breathing vapors or mists. Observe the recommended exposure limits (Section 8). See Section 8 for Personal Protective Clothing and Equipment.
Storage:	Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. Store in a cool, dry, well ventilated area away from direct sunlight, heat, sparks and open flame. Protect from freezing. Keep container closed when not in use.

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits - Consult local authorities for acceptable exposure limits.

Ingredient	ACGIH TLV (8-hr. TWA)	U.S. OSHA PEL (8-hr. TWA)	Ontario (Canada) TWAEV
Urethane polymer	Not established	Not established	Not established
1-methyl-2-pyrrolidone	Not established	Not established	400 mg/m3
2-dimethylaminoethanol	Not established	Not established	3 ppm (11 mg/m3) STEV 6 ppm (22 mg/m3)
Dipropylene glycol monomethyl ether	100 ppm (606 mg/m3); skin STEL 150 ppm (909 mg/m3)	100 ppm (606 mg/m3); skin	100 ppm (605 mg/m3) STEV 150 ppm (910 mg/m3)
Silicon Dioxide	Not Established	Not Established	Not Established

Workplace Environmental Exposure Level Guides (WEELs)/American Industrial Hygiene Association (AIHA) 2005:

1-methyl-2-pyrrolidone:	10 ppm, skin.

The word "skin" indicates that the material might be absorbed in toxicologically significant amounts through the skin. Therefore, skin contact can contribute to the overall exposure and invalidate the TWA exposure evaluations.

Exposure Controls

Engineering Controls:	General ventilation is adequate. In workplaces where a fine mist is created in an enclosed space, provide local exhaust ventilation.
Personal Protection:	
Eye/Face Protection:	Wear chemical splash goggles.
Skin Protection:	Wear impermeable protective gloves and clean body-covering to prevent contact with the skin. Neoprene or nitrile protective gloves are recommended. Impermeable neoprene or nitrile apron and arm covers should be worn when needed to prevent skin contact.
Respiratory Protection:	Not required for normal use. Wear a NIOSH approved respiratory for organic vapors, mists and fumes during spill clean-up, in poorly ventilated areas or when occupational exposure limits are exceeded. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or Canadian Standards Association (CSA) Standard Z94.4-2002 must be followed whenever workplace conditions warrant a respirator's use.
Other Protective Equipment:	Not applicable
General Hygiene Measures:	Remove contaminated clothing promptly. Launder contaminated clothing before re-wearing or discard. Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping.

Section 9: Physical and Chemical Properties

Physical State:	Liquid	**Flash Point & method:**	95.6°C (204°F) Pensky-Martens Closed Tester
Appearance, Color and Odor:	Milky-amber, mild amine odor.	**Autoignition Temperature:**	Not applicable
Odor Threshold:	Not available	**Flammability Limits in Air:**	Not available
pH:	7.5-9.0	**Vapor Pressure:**	Not available
Relative density: (water = 1)	1.02 – 1.04	**Vapor Density: (Air = 1)**	Not available
Partition coefficient: (n-octanol/water)	80cps-200cps	**Evaporation Rate: (n-Butyl Acetate = 1)**	Not available
Solubility:	Not available	**Boiling Point/Range:**	100°C (212°F)
Viscosity:		**Melting Point:**	<0°C (<32°F)
Decomposition Temperature:	Miscible with water	**VOC grams/Liter**	<275

Section 10: Stability and Reactivity

Chemical Stability:	Stable under normal conditions
Conditions to Avoid:	Not Available
Incompatible Materials:	Strong oxidizing agents, Nitrates.
Hazardous Decomposition Products:	Thermal decomposition may generate harmful carbon oxides and nitrogen oxides..
Possibility of Hazardous Reactions:	2-dimethylaminoethanol may react with nitrites to form carcinogenic nitrosamines

Section 11: Toxicological Information

Acute Toxicity Data - Acute oral, dermal and inhalation toxicity data are not available for the mixture. Acute toxicity data for the primary components are listed below:

	LD_{50} Oral (mg/kg)	**LD_{50} Dermal (mg/kg)**	**LC_{50} Inhalation (mg/ m_3 ; 4 hrs.)**
Urethane polymer	Not available	Not available	Not available
1-methyl-2-pyrrolidone	3 914 (rat)	8 000 (rabbit)	Not available
2-dimethylaminoethanol	2 000 (rat)	1 216 (rabbit)	1 641 ppm (rat)
Dipropylene glycol monomethyl ether	5 220 (rat)	Not available	Not available

Section 11: Toxicological Information - Continued

Chronic Toxicity Data Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.

	ACGIH	IARC	NTP	OSHA
Urethane polymer	Not listed	Not listed	Not listed	Not listed
1-methyl-2-pyrrolidone	Not listed	Not listed	Not listed	Not listed
2-dimethylaminoethanol	Not listed	Not listed	Not listed	Not listed
Dipropylene glycol monomethyl ether	Not listed	Not listed	Not listed	Not listed

ACGIH: (American Conference of Governmental Industrial Hygienists)
IARC: (International Agency for Research on Cancer)
NTP: (National Toxicity Program)
OSHA: (US Occupational Safety and Health Administration)

Irritation:	Irritating to the eyes, respiratory system and skin.
Corrosivity:	Not applicable
Sensitization:	2-dimethylaminoethanol may cause respiratory sensitization reactions in sensitized individuals. There is limited evidence of respiratory sensitization in humans
Neurological Effects:	Symptoms of extreme overexposure would probably include headache, nausea, light-headedness, drowsiness, loss of coordination and possibly unconsciousness.
Genetic Effects:	Not available
Reproductive Effects:	Not available
Carcinogenicity:	This preparation does not contain any component that is considered a human carcinogen by IARC (International Agency for Research on Cancer), ACGIH (American Conference of Governmental Industrial Hygienists, OSHA or NTP (National Toxicology Program).
Developmental Effects:	No human information available. Positive results in animal studies have occurred at maternally toxic doses, or by routes of administration (injection) unlikely to be encountered in occupational setting.
Target Organ Effects:	Very high concentrations of Dipropylene glycol monomethyl ether may cause liver or kidney injury.

Section 12: Ecological Information

Ecotoxicity:	Not Available
Persistence/Degradability:	Not Available
Bioaccumulation/Accumulation:	Not available
Mobility:	Not available

Section 13: Disposal Considerations

Waste Disposal Method:	Do NOT dump into any sewers, on the ground or into any body of water. Store material for disposal as indicated in Section 7 Handling and Storage.
US EPA Waste Number:	Dispose of in accordance with local, state and federal laws and regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.
Canada:	Dispose of in accordance with local, provincial and federal laws and regulations.

Section 14: Transport Information

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

Proper Shipping Name:	Paint
Hazard Class:	None
UN Number:	None
Packaging Group:	None

U.S. Hazardous Materials Regulation (DOT 49CFR):	Not Regulated.
Canadian Transportation of Dangerous Goods (TDG):	Not Regulated.
IMDG:	Not Regulated.
Marine Pollutants:	Not Applicable.
ICAO/IATA:	Not Regulated.

Section 15: Regulatory Information

USA	
TSCA Status:	All ingredients in the product are listed on the TSCA inventory.
SARA Title III Sec. 302/304: Sec: 311/312: Sec. 313: CERCLA RQ:	 None Acute N-methyl-2-pyrrolidone (872-50-4) 1% de minimis concentration None
California Prop 65:	This product contains a chemical known to State of California to cause cancer or birth defects or other reproductive harm.
Canada	This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the SDS contains all the information required by the *Controlled Products Regulations*.
WHMIS Classification: (for workplace exposures)	D2B – Other Toxic Effects– Due to eye, respiratory and skin irritation.
New Substances Notification Regulations:	All ingredients in the product are listed on Canada's Domestic Substances List (DSL).
NPRI Substances:	N-methyl-2-pyrrolidone (872-50-4) is a NPRI reportable substance.

Section 16: Other Information

Preparation Information:

Revision Date:	February 2011
Prepared by:	Absolute Coatings, Inc
Disclaimer:	While Absolute Coatings, Inc believes that the data set forth herein is accurate, as of the date hereof, Absolute Coatings makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data is offered solely for your consideration, investigation and verification.
Manufacturer Disclaimer:	The information and recommendations set forth are made in good faith and believed to be accurate at the date of preparation.

Section 1: Identification

Product Name:	**Last n Last Ultra Clear Waterborne Wood Finish Gloss**
Product Code:	1300
Product Use:	Wood Finish
Manufacturer:	Absolute Coatings, Inc. 38 Portman Road New Rochelle NY 10801
Phone Number:	(914) 636-0700

EMERGENCY PHONE # FOR CHEMICAL SPILLS, LEAKS, OR EXPOSURE:
CHEMTEL: 800-255-3924 (24 HRS.) **Nat'l. Poison Control Center: 800-222-1222**

Section 2: Hazards Identification

NFPA (USA)	WHMIS Classification (Canada)	Transport Symbol	Personal Protective Equipment
	 **D2B**	**Ship as a Consumer Commodity**	

Emergency Overview:	**Appearance, Color and Odor:** Milky liquid, sweet ether-like odor. Irritating to eyes, respiratory system and skin. Aspiration hazard, may be fatal if swallowed and enters airways.
	USA: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). Canada: This is a controlled product under WHMIS.
Potential Health Effects:	**ACUTE (short term): see Section 8 for exposure controls**
Relevant Route(s) of Exposure:	Inhalation, Ingestion, Skin contact, Eye contact
Inhalation:	Vapors from this product may cause drowsiness, dizziness and can be irritating to the mucous membranes of the respiratory system. Symptoms of over-exposure include headache, nausea, light-headedness, drowsiness, dizziness, loss of coordination and possibly unconsciousness.
Ingestion:	Swallowing may cause vomiting and irritation to the mouth and digestive system. Product is very hazardous if aspirated into the lungs during swallowing or vomiting. Aspiration into the lungs may cause pulmonary edema, a life-threatening condition; symptoms of pulmonary edema may be delayed several hours. Symptoms of exposure by ingestion include nausea and vomiting, headache, light-headedness, drowsiness, loss of coordination and possibly unconsciousness.
Skin:	Irritating to the skin. Some components may be absorbed through the skin. Widespread or prolonged skin contact may result in absorption of harmful amounts. Symptoms of over-exposure include headache, nausea, light-headedness, drowsiness, loss of coordination and possibly unconsciousness.
Eye:	Liquid, mist and vapors are expected to cause moderate irritation.

Section 2: Hazards Identification - Continued

	CHRONIC (long term): see Section 11 for additional toxicological data Repeated or prolonged skin contact may cause dermatitis, with symptoms of redness, blisters, dryness and cracking of the skin.
Medical Conditions Aggravated by Exposure:	Skin contact may aggravate an existing dermatitis.
Interactions With Other Chemicals:	Skin contact may enhance the absorption through the skin of other chemical substances.
Potential Environmental Effects:	Not available. Do not allow the material to be released into the environment.

Section 3: Composition / Information on Ingredients

Hazardous Ingredients:

Chemical Name	CAS No.	Wt.%
(2-methoxymethylethoxy)propanol	34590-94-8	3 - 7
1-methyl-2-pyrrolidone	872-50-4	1 - 3
2-butoxyethanol	111-76-2	1 - 2
ethane-1,2-diol (ethylene glycol)	107-21-1	0 – 0.1

Section 4: First Aid Measures

Inhalation:	If symptoms develop, remove source of contamination or have victim move to fresh air. If breathing has stopped, properly trained personnel should begin artificial respiration or cardiopulmonary resuscitation (CPR) immediately. Obtain medical advice immediately.
Eye Contact:	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes while holding the eyelids open. If a contact lens is present, do not delay irrigation or attempt to remove the lens. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical advice immediately.
Skin Contact:	As quickly as possible remove contaminated clothing, shoes, and leather goods (e.g. watchbands and belts). Immediately flush with lukewarm, gently flowing water for 15-20 minutes. Completely decontaminate clothing, shoes and leather goods before reuse or discard. Obtain medical advice immediately.
Ingestion:	Immediately obtain medical attention. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration.
Notes to Physician:	Aspiration hazard if ingested.

Section 5: Fire Fighting Measures

Flammable Properties:	Product may burn after water has evaporated if involved in a fire but does not ignite readily.
Suitable extinguishing Media:	Use foam, carbon dioxide, dry chemical extinguishing agents. Use caution when using water; fine water spray may be used to cool fire exposed containers.
Unsuitable extinguishing Media:	Do not use a direct water spray; it may spread the fire. Combustible liquid can travel on the surface of water.
Explosion Data:	
Sensitivity to Mechanical Impact:	Not available.
Sensitivity to Static Discharge:	Not available.
Specific Hazards arising from the Chemical:	Closed containers may rupture violently and suddenly release large amounts of product when exposed to fire or excessive heat for a sufficient period of time. Combustion of the product is expected to produce carbon oxides, nitrogen oxides and irritating, potentially toxic fumes and smoke.
Protective Equipment and precautions for firefighters:	As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.
NFPA	
Health:	2
Flammability:	0
Instability:	0

Section 6: Accidental Release Measures

Personal Precautions:	Wear all skin, eye and respiratory personal protective equipment as indicated in Section 8. Eliminate all sources of heat and ignition. Ventilate the area.
Environmental Precautions:	Prevent material from contaminating soil and from entering sewers or waterways. Do not drain into sewers and drains.
Methods for Containment:	Isolate the spill area. Shut off the leak if it is safe to do so. Contain the liquid immediately using a suitable inert absorbent (sand, clay, vermiculite). Do not use combustible absorbents such as sawdust. Use vapor suppressing foam if needed to reduce vapors.
Methods for Clean-up:	Scoop up contaminated absorbents and place into suitable disposal containers. Collect all spilled material, contaminated absorbents and contaminated water for proper treatment or disposal. Use non-sparking tools to return materials to container. Contaminated absorbents pose the same hazards as the spilled product.

Section 7: Handling and Storage

Handling:	Do not handle this product near heat, sparks or ignition sources. Do not breathe fumes, vapor or spray. Use only with adequate ventilation. Never perform any welding, cutting, soldering, drilling or other hot work on an empty vessel, container or piping; it may cause an explosion. Do not use with incompatible materials such as strong oxidizing agents (e.g. peroxides, nitrates and perchlorates). These can increase the risk of fire and explosion. Avoid contact with eyes, skin and clothing. Wear protective goggles and gloves. Avoid breathing vapors or mists. Observe the recommended occupational exposure limits (Section 8). See Section 8 for Personal Protective Clothing and Equipment.
Storage:	Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. Store in a cool, dry, well ventilated area away from direct sunlight, heat, sparks and open flame. Protect from freezing. Keep container closed when not in use.

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits - Consult local authorities for acceptable exposure limits.

Ingredient	**ACGIH TLV (8-hr. TWA)**	**U.S. OSHA PEL (8-hr. TWA)**	**Ontario (Canada) TWAEV**
(2-methoxymethylethoxy)propanol	100 ppm-Skin 150 ppm STEL	100 ppm-Skin 150 ppm STEL	100 ppm-Skin 150 ppm STEV
1-methyl-2-pyrrolidone Other: AIHA WEEL=10 ppm, Skin	Not established	Not established	400 mg/m3
2-butoxyethanol	20 ppm	25 ppm - Skin	20 ppm
ethane-1,2-diol	100 mg/m3	50 ppm	100 mg/m3

Exposure Controls

Engineering Controls:	Maintain adequate ventilation. In workplaces where a fine mist is created or in an enclosed space, provide local exhaust ventilation.
Personal Protection:	
Eye/Face Protection:	Wear chemical splash goggles.
Skin Protection:	Wear impermeable protective gloves and clean body-covering to prevent contact with the skin. Neoprene or nitrile protective gloves are recommended. Impermeable neoprene or nitrile apron and arm covers should be worn when needed to prevent skin contact.
Respiratory Protection:	Not required for normal use. Wear a NIOSH approved respiratory for organic vapors, mists and fumes during spill clean-up, in poorly ventilated areas or when occupational exposure limits are exceeded. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or Canadian Standards Association (CSA) Standard Z94.4-2002 must be followed whenever workplace conditions warrant a respirator's use.
Other Protective Equipment:	In industrial settings, have an eyewash fountain and safety shower in the immediate work area.
General Hygiene Measures:	Remove contaminated clothing promptly. Launder contaminated clothing before re-wearing or discard. Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping.

Section 9: Physical and Chemical Properties

Physical State:	Liquid	**Flash Point & method:**	>94°C (212°F) for the primary component, closed cup.
Appearance, Color and Odor:	Color; mild sweet odor of ether.	**Autoignition Temperature:**	Not available
Odor Threshold:	Not available	**Flammability Limits in Air:**	LEL: Not available UEL: Not available
pH:	7.5-9	**Vapor Pressure:**	0.05 kPa (0.38 mm Hg) at 25°C for (2-methoxymethylethoxy)propanol
Relative density: (water = 1)	1.01-1.03	**Vapor Density: (Air = 1)**	5.11 for (2-methoxymethylethoxy)propanol
Partition coefficient: (n-octanol/water)	Not available	**Evaporation Rate: (n-Butyl Acetate = 1)**	Not available
Solubility:	Miscible in water	**Boiling Point/Range:**	212°F - 369°F
Viscosity:	80-150 cps	**Melting Point:**	Not available
Decomposition Temperature:	Not available		

Section 10: Stability and Reactivity

Chemical Stability:	Stable under normal conditions
Conditions to Avoid:	Avoid heat and ignition sources.
Incompatible Materials:	Strong oxidizing agents (e.g. chlorine, chromium trioxide, nitric acid, peroxides, permanganates) - may react violently or explosively. Increased risk of fire.
Hazardous Decomposition Products:	Thermal decomposition may generate irritating and toxic vapors of product, carbon oxides and nitrogen oxides.
Possibility of Hazardous Reactions:	Not available

Section 11: Toxicological Information

Acute Toxicity Data - Acute oral, dermal and inhalation toxicity data are not available for the mixture. Acute toxicity data for the primary components are listed below:

	LD_{50} Oral (mg/kg)	**LD_{50} Dermal (mg/kg)**	**LC_{50} Inhalation (mg/ m^3 ; 4 hrs.)**
(2-methoxymethylethoxy)propanol	>5 000 (rat)	>5 000 (rat)	Not available
1-methyl-2-pyrrolidone	>3 000 (rat)	>5 000 (rat)	<5 100 (rat)
2-butoxyethanol	3 598 (rat)	2 000 (rabbit)	3.1 mg/L (rat)
ethane-1,2-diol	4 000 (rat)	9 530 (rabbit)	2 725 (rat)

Section 11: Toxicological Information - Continued

Chronic Toxicity Data

Irritation:	Mists, vapors and liquid are irritating to the eyes, respiratory system and skin.
Corrosivity:	Not applicable
Sensitization:	Not available
Neurological Effects:	Over-exposure to mists and vapors may cause drowsiness and dizziness.
Genetic Effects:	Not available
Reproductive Effects:	Not available
Developmental Effects:	Contains ethane-1,2-diol (0 – 0.1%) which has demonstrated developmental effects in experimental animals at high oral doses.
Carcinogenicity:	This preparation does not contain any component that is considered a human carcinogen by IARC (International Agency for Research on Cancer), ACGIH (American Conference of Governmental Industrial Hygienists, OSHA or NTP (National Toxicology Program).
Target Organ Effects:	Skin, Eyes.

Section 12: Ecological Information

Ecotoxicity:	May be harmful to fish, livestock and wildlife. Prevent release of this product into waterways and other natural environments.
Persistence/Degradability:	Not readily biodegradable. May cause long-term adverse effects in the aquatic environment.
Bioaccumulation/Accumulation:	Not available
Mobility:	Not available

Section 13: Disposal Considerations

Waste Disposal Method:	Do NOT dump into any sewers, on the ground or into any body of water. Store material for disposal as indicated in Section 7 Handling and Storage.
US EPA Waste Number:	Dispose of in accordance with local, state and federal laws and regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.
Canada:	Dispose of in accordance with local, provincial and federal laws and regulations.

Section 14: Transport Information

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

Proper Shipping Name:	Paint
Hazard Class:	None
UN Number:	None
Packaging Group:	None

U.S. Hazardous Materials Regulation (DOT 49CFR):	Not Regulated.
Canadian Transportation of Dangerous Goods (TDG):	Not Regulated.
IMDG:	Not Regulated.
Marine Pollutants:	Not Applicable.
ICAO/IATA:	Not Regulated.

Section 15: Regulatory Information

USA	
TSCA Status:	All ingredients in the product are listed on the TSCA inventory.
SARA Title III Sec. 302/304: Sec: 311/312: Sec. 313: CERCLA RQ:	 None Immediate and long-term health effects N-Methyl-2-pyrrolidone 872-50-4; 1.0 % de minimis Not applicable
California Prop 65:	This product contains a chemical known to State of California to cause cancer or birth defects, or other reproductive harm.
Canada	This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the SDS contains all the information required by the *Controlled Products Regulations*.
WHMIS Classification: (for workplace exposures)	D2A/D2B – Other Toxic Effects–eye, respiratory and skin irritation; untested mixture containing ethylene glycol (0.1%).
New Substances Notification Regulations:	All substances in this product are listed on the DSL.
NPRI Substances:	N-Methyl-2-pyrrolidone 872-50-4; Part 1, Group 1 Substance. 2-Butoxyethanol 111-76-2; Part 1, Group 1 Substance; CEPA Priority substance list.

Section 16: Other Information

Preparation Information:

Revision Date:	February 2011
Prepared by:	Absolute Coatings, Inc
Disclaimer:	While Absolute Coatings, Inc believes that the data set forth herein is accurate, as of the date hereof, Absolute Coatings makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data is offered solely for your consideration, investigation and verification.
Manufacturer Disclaimer:	The information and recommendations set forth are made in good faith and believed to be accurate at the date of preparation.

Section 1: Identification

Product Name:	**Last n Last Ultra Clear Waterborne Wood Finish Satin and Semi-Gloss**
Product Number(s):	1310, 1400
Product Use:	Polyurethane Wood Finish
Manufacturer:	Absolute Coatings, Inc. 38 Portman Road New Rochelle NY, 10801
Phone Number:	(914)636-0700

EMERGENCY PHONE # FOR CHEMICAL SPILLS, LEAKS, OR EXPOSURE:
CHEMTEL: 800-255-3924 (24 HRS.) **Nat'l. Poison Control Center: 800-222-1222**

Section 2: Hazards Identification

NFPA (USA)	WHMIS Classification (Canada)	Transport Symbol	Personal Protective Equipment
	 **D2B**	**Not Regulated**	

Emergency Overview:	**Appearance, Color and Odor:** Milky liquid, sweet ether-like odor. Irritating to eyes, respiratory system and skin. Aspiration hazard if swallowed and enters airways.
	USA: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). Canada: This is a controlled product under WHMIS.
Potential Health Effects:	**ACUTE (short term): see Section 8 for exposure controls**
Relevant Route(s) of Exposure:	Inhalation, Ingestion, Skin contact, Eye contact
Inhalation:	Vapors from this product are irritating to the mucous membranes of the respiratory system. Symptoms of over-exposure include headache, nausea, light-headedness, drowsiness, dizziness, loss of coordination and possibly unconsciousness.
Ingestion:	Swallowing may cause vomiting and irritation to the mouth and digestive system. Product is very hazardous if aspirated into the lungs during swallowing or vomiting. Aspiration into the lungs may cause pulmonary edema, a life-threatening condition; symptoms of pulmonary edema may be delayed several hours. Symptoms of exposure by ingestion include nausea and vomiting, headache, light-headedness, drowsiness, loss of coordination and possibly unconsciousness.
Skin:	Irritating to the skin. Some components may be absorbed through the skin. Widespread or prolonged skin contact may result in absorption of harmful amounts. Symptoms of over-exposure include headache, nausea, light-headedness, drowsiness, loss of coordination and possibly unconsciousness.
Eye:	Liquid, mist and vapors are expected to cause moderate to severe irritation.

Section 2: Hazards Identification, continued

	CHRONIC (long term): see Section 11 for additional toxicological data Repeated or prolonged skin contact may cause dermatitis, with symptoms of redness, blisters, dryness and cracking of the skin.
Medical Conditions Aggravated by Exposure:	Skin contact may aggravate an existing dermatitis.
Interactions With Other Chemicals:	Skin contact may enhance the absorption through the skin of other chemical substances.
Potential Environmental Effects:	Not available. Do not allow the material to be released into the environment.

Section 3: Composition / Information on Ingredients

Hazardous Ingredients:

Chemical Name	CAS No.	Wt.%
(2-methoxymethylethoxy)propanol	34590-94-8	3 - 7
1-methyl-2-pyrrolidone	872-50-4	1 - 3
2-butoxyethanol	111-76-2	1 - 2
ethane-1,2-diol (ethylene glycol)	107-21-1	0 – 0.1
Silica, amorphous fumed	112945-52-5	0.5 – 1.5

Section 4: First Aid Measures

Inhalation:	If symptoms develop, remove source of contamination or have victim move to fresh air. If breathing has stopped, properly trained personnel should begin artificial respiration or cardiopulmonary resuscitation (CPR) immediately. Obtain medical advice immediately.
Eye Contact:	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes while holding the eyelids open. If a contact lens is present, do not delay irrigation or attempt to remove the lens. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical advice immediately.
Skin Contact:	As quickly as possible remove contaminated clothing, shoes, and leather goods (e.g. watchbands and belts). Immediately flush with lukewarm, gently flowing water for 15-20 minutes. Completely decontaminate clothing, shoes and leather goods before reuse or discard. Obtain medical advice immediately.
Ingestion:	Immediately obtain medical attention. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration.
Notes to Physician:	Aspiration hazard if ingested.

Section 5: Fire Fighting Measures

Flammable Properties:	Product may burn after water has evaporated if involved in a fire but does not ignite readily.
Suitable extinguishing Media:	Use foam, carbon dioxide, dry chemical extinguishing agents. Use caution when using water; fine water spray may be used to cool fire exposed containers.
Unsuitable extinguishing Media:	Do not use a direct water spray; it may spread the fire. Combustible liquid can travel on the surface of water.
Explosion Data:	
Sensitivity to Mechanical Impact:	Not available.
Sensitivity to Static Discharge:	Not available.
Specific Hazards arising from the Chemical:	Closed containers may rupture violently and suddenly release large amounts of product when exposed to fire or excessive heat for a sufficient period of time. Combustion of the product is expected to produce carbon oxides, nitrogen oxides and irritating, potentially toxic fumes and smoke.
Protective Equipment and precautions for firefighters:	As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.
NFPA	
Health:	2
Flammability:	0
Instability:	0

Section 6: Accidental Release Measures

Personal Precautions:	Wear all skin, eye and respiratory personal protective equipment as indicated in Section 8. Eliminate all sources of heat and ignition. Ventilate the area.
Environmental Precautions:	Prevent material from contaminating soil and from entering sewers or waterways. Do not drain into sewers and drains.
Methods for Containment:	Isolate the spill area. Shut off the leak if it is safe to do so. Contain the liquid immediately using a suitable inert absorbent (sand, clay, vermiculite). Do not use combustible absorbents such as sawdust. Use vapor suppressing foam if needed to reduce vapors.
Methods for Clean-up:	Scoop up contaminated absorbents and place into suitable disposal containers. Collect all spilled material, contaminated absorbents and contaminated water for proper treatment or disposal. Use non-sparking tools to return materials to container. Contaminated absorbents pose the same hazards as the spilled product.

Section 7: Handling and Storage

Handling:	Do not handle this product near heat, sparks or ignition sources. Do not breathe fumes, vapor or spray. Use only with adequate ventilation. Do not use with incompatible materials such as strong oxidizing agents (e.g. peroxides, nitrates and perchlorates). These can increase the risk of fire and explosion. Avoid contact with eyes, skin and clothing. Wear protective goggles and gloves. Avoid breathing vapors or mists. Observe the recommended occupational exposure limits (Section 8). See Section 8 for Personal Protective Clothing and Equipment.
Storage:	Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. Store in a cool, dry, well ventilated area away from direct sunlight, heat, sparks and open flame. Protect from freezing. Keep container closed when not in use.

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits - Consult local authorities for acceptable exposure limits.

Ingredient	**ACGIH TLV (8-hr. TWA)**	**U.S. OSHA PEL (8-hr. TWA)**	**Ontario (Canada) TWAEV**
(2-methoxymethylethoxy)propanol	100 ppm-Skin 150 ppm STEL	100 ppm-Skin 150 ppm STEL	100 ppm-Skin 150 ppm STEV
1-methyl-2-pyrrolidone Other: AIHA WEEL=10 ppm, Skin	Not established	Not established	400 mg/m3
2-butoxyethanol	20 ppm	25 ppm - Skin	20 ppm
ethane-1,2-diol	100 mg/m3	50 ppm	100 mg/m3
Silica, amorphous fumed (total dust)	Not applicable	Not applicable	Not applicable

Exposure Controls

Engineering Controls:	Maintain adequate ventilation. In workplaces where a fine mist is created or in an enclosed space, provide local exhaust ventilation.
Personal Protection:	
Eye/Face Protection:	Wear chemical splash goggles.
Skin Protection:	Wear impermeable protective gloves and clean body-covering to prevent contact with the skin. Neoprene or nitrile protective gloves are recommended. Impermeable neoprene or nitrile apron and arm covers should be worn when needed to prevent skin contact.
Respiratory Protection:	Not required for normal use. Wear a NIOSH approved respiratory for organic vapors, mists and fumes during spill clean-up, in poorly ventilated areas or when occupational exposure limits are exceeded. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or Canadian Standards Association (CSA) Standard Z94.4-2002 must be followed whenever workplace conditions warrant a respirator's use.
Other Protective Equipment:	In industrial settings, have an eyewash fountain and safety shower in the immediate work area.
General Hygiene Measures:	Remove contaminated clothing promptly. Launder contaminated clothing before re-wearing or discard. Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping.

Section 9: Physical and Chemical Properties

Physical State:	Liquid	**Flash Point & method:**	>94°C (212°F) for the primary component, closed cup.
Appearance, Color and Odor:	Milky; mild sweet odor of ether.	**Autoignition Temperature:**	Not available
Odor Threshold:	Not available	**Flammability Limits in Air:**	LEL: Not available UEL: Not available
pH:	7.5-9	**Vapor Pressure:**	0.05 kPa (0.38 mm Hg) at 25°C for (2-methoxymethylethoxy)propanol
Relative density: (water = 1)	1.01-1.03	**Vapor Density: (Air = 1)**	5.11 for (2-methoxymethylethoxy)propanol
Partition coefficient: (n-octanol/water)	Not available	**Evaporation Rate: (n-Butyl Acetate = 1)**	Not available
Solubility:	Miscible in water	**Boiling Point/Range:**	212°F - 369°F
Viscosity:	80-150 cps	**Melting Point:**	Not available
Decomposition Temperature:	Not available		

Section 10: Stability and Reactivity

Chemical Stability:	Stable under normal conditions
Conditions to Avoid:	Avoid excessive heat and freezing temperatures.
Incompatible Materials:	Strong oxidizing agents (e.g. chlorine, chromium trioxide, nitric acid, peroxides, permanganates) - may react violently or explosively. Increased risk of fire.
Hazardous Decomposition Products:	Thermal decomposition may generate irritating and toxic vapors of product, carbon oxides and nitrogen oxides.
Possibility of Hazardous Reactions:	Not available

Section 11: Toxicological Information

Acute Toxicity Data - Acute oral, dermal and inhalation toxicity data are not available for the mixture. Acute toxicity data for the primary components are listed below:

	LD_{50} Oral (mg/kg)	**LD_{50} Dermal (mg/kg)**	**LC_{50} Inhalation (mg/ m_3 ; 4 hrs.)**
(2-methoxymethylethoxy)propanol	>5 000 (rat)	>5 000 (rat)	Not available
1-methyl-2-pyrrolidone	>3 000 (rat)	>5 000 (rat)	<5 100 (rat)
2-butoxyethanol	3 598 (rat)	2 000 (rabbit)	3.1 mg/L (rat)
Silica, amorphous fumed	3160 (rat)	>5 000 (rabbit)	139 (rat)
ethane-1,2-diol	4 000 (rat)	9 530 (rabbit)	2 725 (rat)

Section 11: Toxicological Information - Continued

Chronic Toxicity Data

Irritation:	Mists, vapors and liquid are irritating to the eyes, respiratory system and skin.
Corrosivity:	Not applicable
Sensitization:	Not available
Neurological Effects:	Over-exposure to mists and vapors may cause drowsiness and dizziness.
Genetic Effects:	Not available
Reproductive Effects:	Not available
Developmental Effects:	Contains ethane-1,2-diol (0 – 0.1%) which has demonstrated developmental effects in experimental animals at high oral doses.
Carcinogenicity:	This preparation does not contain any component that is considered a human carcinogen by IARC (International Agency for Research on Cancer), ACGIH (American Conference of Governmental Industrial Hygienists, OSHA or NTP (National Toxicology Program).
Target Organ Effects:	Skin, Eyes.

Section 12: Ecological Information

Ecotoxicity:	May be harmful to fish, livestock and wildlife. Prevent release of this product into waterways and other natural environments.
Persistence/Degradability:	Not readily biodegradable. May cause long-term adverse effects in the aquatic environment.
Bioaccumulation/Accumulation:	Not available
Mobility:	Not available

Section 13: Disposal Considerations

Waste Disposal Method:	Do NOT dump into any sewers, on the ground or into any body of water. Store material for disposal as indicated in Section 7 Handling and Storage.
US EPA Waste Number:	Dispose of in accordance with local, state and federal laws and regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.
Canada:	Dispose of in accordance with local, provincial and federal laws and regulations.

Section 14: Transport Information

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

Proper Shipping Name:	Paint
Hazard Class:	None
UN Number:	None
Packaging Group:	None

U.S. Hazardous Materials Regulation (DOT 49CFR):	Not Regulated.
Canadian Transportation of Dangerous Goods (TDG):	Not Regulated.
IMDG:	Not Regulated.
Marine Pollutants:	Not Applicable.
ICAO/IATA:	Not Regulated.

Section 15: Regulatory Information

USA	
TSCA Status:	All ingredients are listed or comply with TSCA inventory.
SARA Title III Sec. 302/304: Sec: 311/312: Sec. 313: CERCLA RQ:	 None Immediate and long-term health effects N-Methyl-2-pyrrolidone 872-50-4; 1.0 % de minimis Not applicable
California Prop 65:	This product contains a chemical known to State of California to cause cancer or birth defects or other reproductive harm.
Canada	This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the SDS contains all the information required by the *Controlled Products Regulations*.
WHMIS Classification: (for workplace exposures)	D2A/D2B – Other Toxic Effects–eye, respiratory and skin irritation; untested mixture containing ethylene glycol (0.1%).
New Substances Notification Regulations:	All substances in this product are listed on the Canadian DSL.
NPRI Substances:	N-Methyl-2-pyrrolidone 872-50-4; Part 1, Group 1 Substance. 2-Butoxyethanol 111-76-2; Part 1, Group 1 Substance; CEPA Priority substance list.

Section 16: Other Information

Preparation Information:

Revision Date:	February 2011
Prepared by:	Absolute Coatings, Inc
Disclaimer:	While Absolute Coatings, Inc believes that the data set forth herein is accurate, as of the date hereof, Absolute Coatings makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data is offered solely for your consideration, investigation and verification.
Manufacturer Disclaimer:	The information and recommendations set forth are made in good faith and believed to be accurate at the date of preparation.