



Safety Data Sheet

WB URETHANE 90 DEG SHEEN



1. Identification

Product identifier	WB URETHANE 90 DEG SHEEN		
Product code	WUC-0090		
Other means of identification	None.		
Recommended use of the chemical and restrictions on use	A protective and/or decorative finish or accompanying paint product.		
Manufacturer	GEMINI INDUSTRIES, INC. 2300 Holloway Drive El Reno, OK 73036 Tel. 1-800-262-5710 Fax 1-405-262-9310 www.geminicoatings.com		
Emergency phone number	24-hour Emergency (Spill, Leak, Exposure or accident) INFOTRAC 800-535-5053 Outside USA, Call Collect 1-352-323-3500 (French & English) HAZMAT Response and MSDS Help: EMI 800-510-8510		

2. Hazard identification

Summary	Avoid contact with skin, eyes and clothing. Do not breathe vapours, mists or aerosols. If ingested consult physician immediately and show this Safety Data Sheet. Do not ingest. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
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WHMIS 2015/OSHA HCS 2012/GHS



Skin corrosion/irritation (Category 2)
 Serious eye damage/eye irritation (Category 2A)
 Reproductive toxicity (Category 2)
 Specific target organ toxicity, single exposure, Respiratory tract irritation (Category 3)

WARNING

- H319: Causes serious eye irritation
- H315: Causes skin irritation
- H335: May cause respiratory irritation
- H361D: Suspected of damaging the unborn child
- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P261: Avoid breathing vapours, mist and spray.
- P264: Wash face, hands and any exposed skin thoroughly after handling.
- P271: Use only outdoors or in a well-ventilated area.
- P280: Wear protective gloves, protective clothing and eye protection.
- P302+352: IF ON SKIN: Wash with soap and water.
- P332+313: If skin irritation occurs: Get medical advice or attention.
- P304+340+P312: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
- P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to

do. Continue rinsing.

P337+313: If eye irritation persists: Get medical advice or attention.

P308+313: IF exposed or concerned: Get medical advice/attention.

P321: Specific treatment (see section 4 of SDS or on this label).

P362+364: Take off contaminated clothing and wash before reuse.

P403+233: Store in a well ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of contents and container to an approved waste disposal plant.

3. Composition/information on ingredients

Common name	CAS	Weight % content
N-Methyl-2-pyrrolidone	872-50-4	10 - 11 %
Triethylamine	121-44-8	1 - 2 %
Diethylene glycol monobutyl ether	112-34-5	1 - 2 %

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	Wash skin with warm water and mild soap. Remove contaminated clothing and wash before reuse. If a problem develops or persists, seek medical attention.
Eye contact	IMMEDIATELY flush with plenty of water. Remove contact lenses. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. If victim is conscious rinse mouth with water and give 1-2 glasses of water to drink. Never give anything by mouth if victim is unconscious or convulsing. If spontaneous vomiting occurs, keep head below hip level to prevent aspiration into the lungs. Seek medical attention or contact a Poison Centre immediately.
Other	No information available.
Symptoms	May cause redness and irritation to eyes. May cause redness, dryness, rash and skin irritation. May cause respiratory tract irritation.
Notes to the physician	Treat symptomatically. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemicals, water spray, chemical foam, carbon dioxide (CO ₂).
Specific hazards arising from the chemical	This product is an aqueous solution which does not support combustion unless the water has been evaporated. Do not apply to hot surfaces. In a fire or if heated, a pressure increase will occur and the container may burst.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Use water spray to cool fire-exposed containers. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry in sewer and other enclosed area. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	Ventilate the area well. Stop leak, if it's possible to do so without risk. Absorb with inert material (soil, sand, vermiculite) or wipe up or scrape up and place in an appropriate waste disposal container clearly identified. Dispose via a licensed waste disposal contractor. Finish cleaning the contaminated surface by rinsing with soapy water.

7. Handling and storage

Precautions for safe handling	Use only in well ventilated area. Avoid prolonged or repeated breathing of vapour or mists. Avoid contact with skin, eyes and clothing. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Avoid high temperatures and intense heat. Keep containers tightly closed when not used. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Store tightly closed and in properly labelled container in a dry, cool and well ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep away from direct sunlight and heat. Keep from freezing.
Storage temperature	10 to 35°C (50 to 95°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Triethylamine: 200 ppm.			
N-Methyl-2-pyrrolidone	TWA (8h)		10 ppm	US AIHA
Diethylene glycol monobutyl ether	TWA (8h)	Inhalable Fraction	10 ppm	ACGIH
Triethylamine	STEL		1 ppm	ACGIH
			3 ppm	BC , ON
			15 ppm	61 mg/m ³ RSST (Pc)
	TWA (8h)		0.5 ppm	ACGIH
			1 ppm	BC , ON
			5 ppm	20.5 mg/m ³ RSST (Pc)
Appropriate engineering controls	Provide sufficient mechanical ventilation (general and/or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.			
Individual protection measures				
Eye	Wear chemical splash goggles.			
Hands	If any risk of skin contact wear nitrile or neoprene gloves. Disposable nitrile gloves can also be used, but discard after single use. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.			
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. Wear synthetic apron, if necessary, to prevent repeated or prolonged contact with skin.			

Respiratory	Respiratory protection is not required for normal use. Respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and CSA Standard Z 94.4 and approved by NIOSH / MSHA. In case of insufficient ventilation or in confined or enclosed space and for an assigned protection factor (APF) up to 10 times of exposure limit, wear a half mask respirator with organic vapour cartridges. For an APF until maximum 100 times of exposure limit, wear a full face mask respirator with organic vapour cartridges.
Feet	Wear rubber boots to clean up a spill.

9. Physical and chemical properties

Physical state	Liquid	Flammability	Non-flammable.
Colour	Clear	Flammability limits	1 to 10.6%
Odour	Mild acrylic odor	Flash point	>93.3°C (199.9°F) Tagliabue closed cup
Odour threshold	N/Av.	Auto-ignition temperature	N/Av.
pH	8 to 9	Sensibility to electrostatic charges	No
Melting point	N/Av.	Sensibility to sparks and/or friction	No
Freezing point	N/Av.	Vapour density	4 (Air = 1)
Boiling point	89.45°C (193°F)	Relative density	1.03 kg/L (Water = 1)
Solubility	Partially soluble in water.	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	N/Av.	Decomposition temperature	N/Av.
Vapour pressure	0.267kPa (2 mm Hg)	Viscosity	N/Av.
Percent Volatile	70%	Molecular mass	N/Av.
N/Av.: Not Available N/Av.: Not Applicable Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.
Conditions to avoid	Avoid high temperatures and intense heat. Keep from freezing.
Incompatible materials	None reported.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.


11. Toxicological information

Numerical measures of toxicity	<p>N-Methyl-2-pyrrolidone Ingestion 3914 mg/kg Rat LD50 Inhalation >5.1 mg/l/4h Rat LC50 Skin 8000 mg/kg Rabbit LD50</p> <p>Diethylene glycol monobutyl ether Ingestion 5660 mg/kg Rat LD50 Skin 2700 mg/kg Rabbit LD50</p> <p>Triethylamine Ingestion 460 mg/kg Rat LD50 Inhalation 10.9 mg/l/4h Rat LC50 Skin 420 mg/kg Rabbit LD50</p>
Likely routes of exposure	<p>Skin, eyes, inhalation, ingestion.</p>
Delayed, immediate and chronic effects	<p>Eye contact May cause eye irritation. Triethylamine (undiluted) is highly irritating and cause severe ocular injury (OECD TG 405). N-Methyl-2-pyrrolidone (undiluted) is irritating to eye (rabbits, OECD TG 405). Diethylene glycol monobutyl ether (CAS no 112-34-5) is an eye irritant (rabbits, OECD 405).</p> <p>Skin contact May cause redness and irritation of the skin. Prolonged and repeated contact may cause drying and cracking of the skin. Widespread contact with skin for several hours can cause harmful amounts of material to be absorbed. Triethylamine (undiluted) is corrosive to the rabbit skin (OECD TG 404). N-Methyl-2-pyrrolidone (undiluted) is irritating to the rabbit skin (OECD TG 404). Diethylene glycol monobutyl ether (CAS no 112-34-5) can cause a mild skin irritation (rabbits, OECD 404).</p> <p>Inhalation May cause respiratory tract irritation. Excessive inhalation is harmful. High concentrations may cause central nervous system depression characterized by headache, dizziness, vertigo, nausea, drowsiness and fatigue. The severity of symptoms may vary depending on exposure conditions.</p> <p>Ingestion May cause gastro-intestinal irritation with nausea and vomiting.</p> <p>Respiratory or skin sensitization Ingredients present at levels greater than or equal to 0.1% of this product are skin or respiratory sensitizers.</p> <p>IARC/NTP Classification No ingredients listed.</p> <p>Carcinogenicity Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.</p> <p>Mutagenicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effect.</p> <p>Reproductive toxicity Some developmental effects, including post implantation loss, foetal malformations and pup mortality have been observed in rats, rabbits and mice following oral and/or dermal exposure of N-Methyl-2-pyrrolidone (OECD, 2009).</p> <p>Specific target organ toxicity - single exposure Respiratory system.</p> <p>Specific target organ toxicity - repeated exposure No target organ is listed.</p>
Interactive effects	<p>No information available for this product.</p>
Other information	<p>The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 5000 mg/kg. These values are not classified according to GHS. The acute toxicity estimate (ATE) by inhalation of the mixture was calculated to be greater than 20 mg/L/4h. This value is not classified according to GHS. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.</p>

12. Ecological information

Ecological toxicity	Fish - <i>Oryzias latipes</i>	LC50 24 mg/L; 96h (Triethylamine) OECD 203
	Aquatic Invertebrate - <i>Ceriodaphnia dubia</i> (static)	EC50 17 mg/L; 48h (Triethylamine)
	Algae, <i>Pseudokirchneriella subcapitata</i>	EC50 8 mg/L; 72h (Triethylamine) OECD 201
	Fish - <i>Lepomis macrochirus</i> - Bluegill	LC50 1300 mg/L; 96 h (CAS no 112-34-5)
	Fish - <i>Oncorhynchus mykiss</i> - Rainbow trout	LC50 >500 mg/L; 96h (Diethylene glycol monobutyl ether)
	Aquatic Invertebrate - <i>Ceriodaphnia dubia</i>	CESO 7.1 mg/L; 7 days (Triethylamine)
	Fish - <i>Oncorhynchus mykiss</i> - Rainbow trout	LC50 >500 mg/L; 96h (N-Methyl-2-pyrrolidone)
	Invertebrate - <i>Palaemonetes vulgaris</i>	EC50 >1107 mg/L; 96h (N-Methyl-2-pyrrolidone)
Algae - <i>Desmodesmus subspicatus</i>	EC50 600 mg/L; 72h (N-Methyl-2-pyrrolidone)	
Persistence	Not persistent in aquatic environment.	
Degradability	N-Méthyl-2-pyrrolidone is readily biodegradable; >70% in 28 days (OECD 301C). Diethylene glycol monobutyl ether is readily biodegradable at 88% in 28 days (OECD 301D). Triethylamine is readily biodegradable (aerobic) at 80% in 28 days (OECD TG 301B).	
Bioaccumulative potential	The product is degraded rapidly by photo-chemical reactions in air through indirect photolysis with production hydroxyl free radicals. N-Méthyl-2-pyrrolidone is readily biodegradable; >70% in 28 days (OECD 301C). Diethylene glycol monobutyl ether has low potential to bioaccumulate in aquatic organisms with an estimated bioconcentration factor (BCF) of 3. Triethylamine has a low Bioconcentration Factor (BCF = 0.5) and a partition coefficient Log Kow of 1.45, which suggest the potential for accumulation in aquatic organisms is low (OECD TG 305C).	
Mobility in soil	The estimated Koc value of 20.9 for N-Methyl-2-pyrrolidone suggests a very high mobility in soil. The estimated log Koc of 0.56 suggests that diethylene glycol monobutyl ether is expected to have high mobility in soil (TOXNET). Triethylamine is soluble in water and it is expected to have high mobility in soil from his estimated Koc of 150.	
Other adverse effects	This chemical does not deplete the ozone layer.	

13. Disposal considerations

 Container	Important! Prevent waste generation. Use in full. DO NOT dispose of residue in sewers, streams or drinking water supply. Paint residues, including lacquers, stains, shellac, varnish, solvents and paint thinners, can be reprocessed (recycle) anywhere there is a recovery program. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.
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14. Transport information

UN Number	UN
UN Proper Shipping Name	Not regulated by TDG (Canada) and 49 CFR DOT (USA).
Environmental hazards	This material does not contain marine pollutant.
Special precautions for user	No information available.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	Not regulated

Packing group	Not regulated
IMO/IMDG - International Maritime Transport	
Classification	Not regulated
IATA - International Air Transport Association	
Classification	Not regulated
These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.	

15. Regulatory information

CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
N-Methyl-2-pyrrolidone	872-50-4	X	X		X
Triethylamine	121-44-8	X	X		X
Diethylene glycol monobutyl ether	112-34-5	X	X		X

- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act

- DSL: Domestic Substances List Inventory

- NDSL: Non-Domestic Substances List Inventory

- NPRI: National Pollutant Release Inventory Substances

UNITED STATE OF AMERICA

Common name	CAS	TSCA	CERCLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Priority
N-Methyl-2-pyrrolidone	872-50-4	X		X						
Triethylamine	121-44-8	X	X	X		X	X		X	
Diethylene glycol monobutyl ether	112-34-5	X								

- TSCA: Toxic Substance Control Act

- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances

- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals

- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances

- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant

- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants

- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention

- CWA 311: Clean Water Act - List of Hazardous Substances

- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65

Common name	CAS	Cancer	Reproductive and Developmental Toxicity
N-Methyl-2-pyrrolidone	872-50-4		X

Other regulations

WHMIS 1988



D2B

Class D2B : Toxic material causing other toxic effects

HMIS

1	Health
1	Flamability
0	Reactivity
X	Protective Equipment

NFPA**16. Other information**

Date (YYYY-MM-DD)	GEMINI INDUSTRIES, INC. 2016-01-25
Version	01
Other information	<p>REFERENCES:</p> <ul style="list-style-type: none"> - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, http://hazmap.nlm.nih.gov/index.php - TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, http://toxnet.nlm.nih.gov/ - Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), http://www.reptox.csst.qc.ca - NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, http://www.cdc.gov/niosh/npg/npg.html - Database, Institut National de Recherche et de Sécurité, http://www.inrs.fr/accueil/produits/bdd.html <p>ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association HMIS: Hazardous Materials Identification System NFPA: National Fire Protection Association OSHA: Occupational Safety and Health Administration (USA) NIOSH: National Institute for Occupational Safety and Health NTP: National Toxicology Program RSST: Règlement sur la santé et la sécurité du travail (Québec) GHS: Globally Harmonized System IARC: International Agency for Research on Cancer IDLH: Immediately Dangerous to Life or Health STEL: Short Term Exposure Limit (15 min) TWA: Time Weighted Averages WHMIS: Workplace Hazardous Materials Information System</p> <p>To the best of our knowledge, the information contained herein is accurate. However, neither Préventis System 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.</p>