



SAFETY DATA SHEET

Issue Date 06-May-2015

Revision Date 15-March-2021

Version 2.2

1. IDENTIFICATION

Product identifier

Product Name ARMOR ALPHA UTN (PART A)

Recommended use of the chemical and restrictions on use

Recommended Use Concrete Coating.

Uses advised against No Data

Details of the supplier of the safety data sheet

Distributor Address

Foundation Armor 3 Howe Drive, Suite 2, Amherst, NH 03031

Emergency telephone number

Company Phone Number 866-306-0246

24 Hour Emergency Phone Number 800-424-9300 (United States & Canada) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 5
Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration toxicity	Category 1
Flammable liquids Category 2, Hazardous to the Aquatic Environment - Long Term (Chronic) Hazard Category 2	

Label elements

Emergency Overview

Danger!

Hazard statements

Highly flammable
Suspected of Causing Cancer
Toxic to Aquatic Life with Long Lasting Effects
Causes Serious Eye Irritation
May Cause Respiratory Irritation
May Cause Drowsiness or Dizziness
May be Harmful if Swallowed
May be Harmful if Swallowed and Enters Airways
Causes Skin Irritation

**Appearance** Colorless to yellowish.**Physical state** liquid**Odor** Solvent**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ ventilating / lighting/ .? / equipment
 Use only non-sparking tools
 Take action to prevent static discharges
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 Use only outdoors or in a well-ventilated area
 Avoid release to the environment
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
 If skin irritation occurs: Get medical advice or attention.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contacts, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
 IF SWALLOWED: Immediately call a POISON CONTROL CENTER/doctor
 Do NOT induce vomiting.
 Take off contaminated clothing and wash before reuse
 In case of fire use, "alcohol resistant" foam, dry chemical, halon or carbon dioxide to extinguish.
 Collect spillage

Precautionary Statements - Storage

Store in well-ventilated place. Keep Cool. Keep container tightly closed. Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

Hazards not otherwise classified (HNOC)

Repeated exposure may cause skin dryness or cracking

Other Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No.	Weight-%	Trade Secret
Polyester Polyol	26745-09-5	15 - 40	*
Propylene glycol monomethyl ether acetate	108-65-6	15 - 40	*
n-Butyl acetate	123-86-4	5 - 15	*
tert-Butyl acetate	540-88-5	5 - 15	*
Petroleum naphtha, light aromatic	64742-95-6	5 - 10	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice	Move out of the dangerous area. Consult a physician. Provide this Safety Data Sheet to the doctor in attendance.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.
Ingestion	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Symptoms Eye, Skin, and Respiratory Irritation. May cause allergic skin reaction.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically. For additional information, see Safety Data Sheet.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry Chemical, Alcohol Resistant Foam, Halon or Carbon Dioxide.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

In a fire or if heated a pressure increase may occur and the container may burst.

Hazardous combustion products Carbon dioxide (CO₂). Carbon monoxide.

Explosion data

Sensitivity to Mechanical Impact Not available.

Sensitivity to Static Discharge May be ignited by friction, heat, sparks or flames.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. P261 - Avoid breathing dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not allow product to enter any drains or waterways.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills.

Methods for cleaning up Use a non-combustible material like vermiculite or sand to soak up the product and place into a container for later disposal. Use clean non-sparking tools to collect absorbed material. Dispose according to local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Take measures to prevent the buildup of electrostatic charge. Use non-sparking tools. Wash hands and skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Incompatible materials Keep away from strong oxidizing agents, strong alkalis, and strong acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aromatic 100 64742-95-6	TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³	
n-Butyl acetate 123-86-4	STEL: 200 ppm TWA: 150 ppm	TWA: 150 ppm TWA: 710 mg/m ³	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m ³ STEL: 200 ppm STEL: 950 mg/m ³
tert-Butyl acetate 540-88-5	TWA: 200 ppm	TWA: 200 ppm TWA: 950 mg/m ³	IDLH: 1500 ppm TWA: 200 ppm TWA: 950 mg/m ³
2-methoxy-1-methylethyl acetate 108-65-6	TWA: 50 ppm		

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear chemical resistant gloves at minimum. Wash skin immediately upon contact. Wash hands at mealtime and end of shift.
Respiratory protection	Use respiratory protection unless adequate local exhaust ventilation is provided, or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after breaks and at the end of the workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	Solvent
Appearance	Colorless to yellowish.	Odor threshold	No data available
Color	Colorless to yellowish.		
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	Not Relevant		
Melting point / freezing point	Not Available		
Boiling point / boiling range	no data available		
Flash point	4 °C 39 °F	CC (closed cup)	
Evaporation rate	Not Available		
Flammability (solid, gas)	Not Relevant		
Flammability Limit in Air			
Upper flammability limit:	Not Available		
Lower flammability limit:	Not Available		
Vapor pressure	Not Available		
Vapor density	Not Available		
Relative density	1.03 @ 70 Degrees F		
Water solubility	Insoluble in water		
Solubility in other solvents	Not Available		
Partition coefficient	Not Available		
Autoignition temperature	Not Available		
Decomposition temperature	Not Available		
Kinematic viscosity	Not Available		
Dynamic viscosity	Not Available		
Explosive properties	Not Available		
Oxidizing properties	Not Available		

Other Information

Softening point	Not Relevant
Molecular weight	Not Available
VOC Content (%)	< 400 g/L (Mixed A&B)
Density	Not Available
Bulk density	Not Available

10. STABILITY AND REACTIVITY

Reactivity

Not Available

Chemical stability

Stable.

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Keep away from strong oxidizing agents, strong alkalis, and strong acids.

Hazardous Decomposition Products

Hazardous decomposition products formed under fire conditions, carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Direct contact and vapor inhalation.
Eye contact	Direct contact.
Skin contact	Direct contact.
Ingestion	Direct contact.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Propylene glycol monomethyl ether acetate 108-65-6	= 8532 mg/kg (Rat)	> 5 g/kg (Rabbit)	> 20 mg/l (Rat) 6 h
n-Butyl acetate 123-86-4	Oral LD-50: (Rat): 14,130 mg/kg	Dermal LD-50: (Rabbit): > 16ml/kg	N/A
tert-Butyl acetate 540-88-5	-	-	> 2230 mg/m ³ (Rat) 4 h
Petroleum naphtha, light aromatic 64742-95-6	-	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h = 3400 ppm (Rat) 4 h
2-methoxy-1-methylethyl acetate 108-65-6	6,190 mg/kg (Rat)	> 5,000 mg/kg (Rabbit)	> 4345 ppm (Rat) 6 h
2-methoxypropanol 1589-47-5	5,710 mg/kg (Rat)	5,660 mg/kg (Rabbit)	

Information on toxicological effects

Symptoms May cause drowsiness or dizziness if inhaled. May cause respiratory irritation. Causes serious eye irritation. Causes skin irritation.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Causes severe burns. Irritating to skin.
Serious eye damage/eye irritation	Irritating to eyes. Risk of serious damage to eyes.
Irritation	Irritating to eyes, respiratory system and skin.
Sensitization	No data available.
Germ cell mutagenicity	No data available.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP
Reproductive toxicity	Not classified based on available information.
STOT - single exposure	Not Available.
STOT - repeated exposure	Not Available.

Aspiration hazard Not Available.

Numerical measures of toxicity - Product Information

12. ECOLOGICAL INFORMATION

Material is expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Propylene glycol monomethyl ether acetate 108-65-6	-	161: 96 h Pimephales promelas mg/L LC50 static	500: 48 h Daphnia magna mg/L EC50
n-Butyl acetate 123-86-4	EC-50 (Alga, 72 h): 648 mg/l	LC-50 (Fathead Minnow, 96 h): 18 mg/l	
1,2,4 Trimethylbenzene 95-63-6	-	7.19 - 8.28: 96 h Pimephales promelas mg/L LC50 flow-through	6.14: 48 h Daphnia magna mg/L EC50
tert-Butyl acetate 540-88-5	-	296 - 362: 96 h Pimephales promelas mg/L LC50 flow-through	-
Petroleum naphtha, light aromatic 64742-95-6	-	9.22: 96 h Oncorhynchus mykiss mg/L LC50	6.14: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No data available.

Bioaccumulation

No data available.

Chemical Name	Partition coefficient
Propylene glycol monomethyl ether acetate 108-65-6	0.43
tert-Butyl acetate 540-88-5	1.38

Other adverse effects No data available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Under RCRA 40 CFR 261 this material is a hazardous waste. Dispose of in accordance with all federal, state, and local regulations. If uncertain of local requirements, contact the proper environmental authorities for information on waste disposal in your area. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT UN1263, PAINT RELATED MATERIAL, 3, II

Marine pollutant Material is expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

IATA UN1263, PAINT RELATED MATERIAL, 3, II

IMDG UN1263, PAINT RELATED MATERIAL, 3, II

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies

Legends

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

California Proposition 65

This product is not legal for sale in the state of California.

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 3	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 2	Flammability 3	Physical hazards 0	Personal protection X

Issue Date 06-May-2015
 Revision Date 15-March-2021
 Revision Note

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



SAFETY DATA SHEET

Issue Date 08-May-2015

Revision Date 15-March-2021

Version 2.2

1. IDENTIFICATION

Product identifier

Product Name ARMOR ALPHA UTN (PART B)

Recommended use of the chemical and restrictions on use

Recommended Use Concrete Coating.

Uses advised against No Data

Details of the supplier of the safety data sheet

Distributor Address

Foundation Armor 3 Howe Drive, Suite 2, Amherst, NH 03031

Emergency telephone number

Company Phone Number 866-306-0246

24 Hour Emergency Phone Number 800-424-9300 (United States & Canada) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 5
Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3
Aspiration toxicity	Category 2
Flammable liquids Category 2, Hazardous to the Aquatic Environment - Long Term (Chronic) Hazard Category 2	

Label elements

Emergency Overview

Danger!

Hazard statements

Highly flammable
Toxic to Aquatic Life with Long Lasting Effects
Causes Serious Eye Irritation
May Cause Respiratory Irritation
May Cause Drowsiness or Dizziness
May be Harmful if Swallowed
May be Harmful if Swallowed and Enters Airways
Causes Skin Irritation

**Appearance** Transparent Liquid**Physical state** liquid**Odor** Solvent**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ ventilating / lighting/ .? / equipment
 Use only non-sparking tools
 Take action to prevent static discharges
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 Use only outdoors or in a well-ventilated area
 Avoid release to the environment
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
 If skin irritation occurs: Get medical advice or attention.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contacts, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
 IF SWALLOWED: Immediately call a POISON CONTROL CENTER/doctor
 Do NOT induce vomiting.
 Take off contaminated clothing and wash before reuse
 In case of fire use, "alcohol resistant" foam, dry chemical, halon or carbon dioxide to extinguish.
 Collect spillage

Precautionary Statements - Storage

Store in well-ventilated place. Keep Cool. Keep container tightly closed. Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

Hazards not otherwise classified (HNOC)

Repeated exposure may cause skin dryness or cracking

Other Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No.	Weight-%	Trade Secret
Polyhexamethylene Diisocyanate	28182-81-2	60 - 100	*
n-Butyl acetate	123-86-4	10 - 30	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice	Move out of the dangerous area. Consult a physician. Provide this Safety Data Sheet to the doctor in attendance.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.
Ingestion	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Symptoms Eye, Skin, and Respiratory Irritation. May cause allergic skin reaction.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically. For additional information, see Safety Data Sheet.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Dry Chemical, Alcohol Resistant Foam, Halon or Carbon Dioxide.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

In a fire or if heated a pressure increase may occur and the container may burst.

Hazardous combustion products Carbon dioxide (CO₂). Carbon monoxide.

Explosion data

Sensitivity to Mechanical Impact Not available.

Sensitivity to Static Discharge May be ignited by friction, heat, sparks or flames.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions Use personal protective equipment as required. P261 - Avoid breathing dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not allow product to enter any drains or waterways.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills.

Methods for cleaning up Use a non-combustible material like vermiculite or sand to soak up the product and place into a container for later disposal. Use clean non-sparking tools to collect absorbed material. Dispose according to local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Take measures to prevent the buildup of electrostatic charge. Use non-sparking tools. Wash hands and skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Incompatible materials Keep away from strong oxidizing agents, strong alkalis, and strong acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
n-Butyl acetate 123-86-4	STEL: 200 ppm TWA: 150 ppm	TWA: 150 ppm TWA: 710 mg/m ³	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m ³ STEL: 200 ppm STEL: 950 mg/m ³
Homopolymer of Hexamethylene Diisocyanate 28182-81-2	STEL: 0.001 pm TWA: 0.005 ppm	N/A	
Hexamethylene-1, 6- Diisocyanate 822-06-9	STEL: N/A TWA: 0.005	N/A	

Appropriate engineering controls

Engineering Controls General/Local Ventilation Recommended.

Individual protection measures, such as personal protective equipment

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

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear chemical resistant gloves at minimum. Wash skin immediately upon contact. Wash hands at mealtime and end of shift.

Respiratory protection Use respiratory protection unless adequate local exhaust ventilation is provided, or exposure assessment demonstrates that exposures are within recommended exposure

guidelines. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after breaks and at the end of the workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	Solvent
Appearance	Transparent Liquid	Odor threshold	No data available
Color	Transparent Liquid - May have slight color due to performance additives.		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not Relevant	
Melting point / freezing point	Not Available	
Boiling point / boiling range	No Data Available	
Flash point	27°C 80.6 °F	CC (closed cup)
Evaporation rate	Not Available	
Flammability (solid, gas)	Not Relevant	
Flammability Limit in Air		
Upper flammability limit:	7.6%	
Lower flammability limit:	1.7%	
Vapor pressure	Not Available	
Vapor density	Not Available	
Relative density	1.09 @ 70 Degrees F	
Water solubility	Insoluble in water	
Solubility in other solvents	Not Available	
Partition coefficient	Not Available	
Autoignition temperature	Not Available	
Decomposition temperature	Not Available	
Kinematic viscosity	Not Available	
Dynamic viscosity	Not Available	
Explosive properties	Not Available	
Oxidizing properties	Not Available	

Other Information

Softening point	Not Relevant
Molecular weight	Not Available
VOC Content (%)	< 400 g/L (Mixed A & B)
Density	Not Available
Bulk density	Not Available

10. STABILITY AND REACTIVITY

Reactivity

Not Available

Chemical stability

Stable.

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Water, amines, strong bases, alcohols, copper alloys.

Hazardous Decomposition Products

Carbon dioxide, carbon monoxide, oxides of nitrogen, dense black smoke, hydrogen cyanide, isocyanate, isocyanic acid, and other compounds unidentified.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Inhalation	Direct contact and vapor inhalation.
Eye contact	Direct contact.
Skin contact	Direct contact.
Ingestion	Direct contact.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Homopolymer of Hexamethylene Diisocyanate 28182-81-2	LD50 Oral Rat, Female ≥2,500 mg/kg	LD50 Dermal Rabbit >2,000 mg/kg LD50 Dermal Rat >2,000 mg/kg	LD50 Inhalation Rat, Female 0.390 – 0.543 mg/l 4h
Hexamethylene-1, 6- Diisocyanate 822-06-9	LD50 Oral Rat, Female 746 mg/kg	LD50 Dermal Rat >7,000 mg/kg	LD50 Inhalation Rat, Female 0.124 mg/l 4h
n-Butyl acetate 123-86-4	Oral LD-50: (Rat): 14,130 mg/kg	Dermal LD-50: (Rabbit): > 16ml/kg	N/A

Information on toxicological effects

Symptoms May cause drowsiness or dizziness if inhaled. May cause respiratory irritation. Causes serious eye irritation. Causes skin irritation.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Irritating to skin.
Serious eye damage/eye irritation	Irritating to eyes. Risk of serious damage to eyes.
Irritation	Irritating to eyes, respiratory system and skin.
Sensitization	No data available.
Germ cell mutagenicity	No data available.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP
Reproductive toxicity	Not Available.
STOT - single exposure	Not Available.
STOT - repeated exposure	Not Available.
Aspiration hazard	Not Available.

Numerical measures of toxicity - Product Information

12. ECOLOGICAL INFORMATION

Material is expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
n-Butyl acetate 123-86-4	674.7: 72 h Desmodesmus subspicatus mg/L EC50	17 - 19: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Lepomis macrochirus mg/L LC50 static 62: 96 h Leuciscus idus mg/L LC50 static	72.8: 24 h Daphnia magna mg/L EC50
Homopolymer of Hexamethylene Diisocyanate 28182-81-2		LC50 100 mg/l (Zebra Fish, 96h)	EC50 100 mg/l (water flea, 48 h).
Hexamethylene-1, 6- Diisocyanate 822-06-9	An accumulation in aquatic organisms is not expected.	LC0: ≥82.8 mg/l (Zebra Fish) 48 h	

Persistence and degradability

No data available.

Bioaccumulation

No data available.

Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes**

Under RCRA 40 CFR 261 this material is a hazardous waste. Dispose of in accordance with all federal, state, and local regulations. If uncertain of local requirements, contact the proper environmental authorities for information on waste disposal in your area. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION**DOT**

UN1263, PAINT, 3, III

Marine pollutant

Material is expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

IATA

UN1263, PAINT RELATED MATERIAL, 3, III

IMDG

UN1263, PAINT RELATED MATERIAL, 3, II

15. REGULATORY INFORMATION**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	Yes
Reactive Hazard	No

US State Regulations

California Proposition 65

This product is not legal for sale in the state of California.

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 3	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 2	Flammability 3	Physical hazards 0	Personal protection X

Issue Date 08-May-2015
 Revision Date 15-March-2021
 Revision Note

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet