

TECHNICAL & SAFETY DATA SHEET

Technical Data Sheet

SP-20 Flexible Urethane Membrane

POLYMER NATION CHEMICAL COMPANY, LLC



Product Overview: SP-20 is a flexible aromatic urethane that has extreme tensile strength with an A shore hardness of 75. It is easy to install, has little odor and has elongation of over 1000%. It far outperforms epoxy membranes in crack-bridging and as a waterproofing membranes under Polymer Nation floor systems.

Uses: SP-20 is primarily used as a membrane in parking decks and waterproofing applications. It can also be used as a flexible broadcast resin, as a binder in flexible floor applications and bulked up using fumed silica to make a flexible patching paste.

Preparation: The preparation method for each project is determined by a full understanding of the substrate to be coated, the chemistry of the coating system being used, the coating system thickness, and numerous other factors. The coating installer should fully read and understand ICRI Guideline NO.03732 and OSHA 29 CFR 1926.1153 before starting preparatory work. The aim, of preparing a substrate for coating applications, is to roughen the surface, remove weak layers, contaminants, dirt, debris and present a solid, clean, dry substrate for the primer. If unsure as to the level of preparation needed contact Polymer Nation at Lab@polymerNation.com.

The data below represents the most pertinent information needed by a professional installer to understand and efficiently install this material. The data was gathered at temperatures of 72-75 F and 30-50% RH. A wide array of independent and company test data has been compiled on this product but is too large to place on this Technical Data Sheet. Please direct inquiries for detailed test reports on this product to Lab@polymerNation.com.

Description	Results	Notes
Kit Yield in Gallons	5	1 mix kit consists of 4.30 gal A and .70 gal B
Number of Components	2	
Mix Ratio Liquids by Volume	Not Provided	Do not split kits.
Ideal Application Temperatures	60F-90F	Verify that substrate temperature is above 5 degrees of dewpoint during application and cure of material to avoid a potential amine blush
Mixed Viscosity in cP@25C/77F	2000	Warmer temperatures will reduce viscosity and lower temperatures will increase viscosity
Gel Time	23 min.	Warmer temperatures will decrease gel time and lower temperatures will increase gel time
Dry to Touch	2.5 Hours	Warmer temperatures will reduce time and colder temperatures will increase time
Through Dry	4 Hours	Warmer temperatures will reduce time and colder temperatures will increase time
Dry to Walk	8 Hours	Warmer temperatures will reduce time and colder temperatures will increase time
Dry to Lightly Use	12 Hours	Warmer temperatures will reduce time and colder temperatures will increase time
Full Cure	7 Days	Warmer temperatures will reduce time and colder temperatures will increase time
Shore Hardness at 24 hours	A 40	Warmer temperatures will increase hardness
Shore Hardness at 7 days	A 75	Warmer temperatures will shorten time to reach full hardness
Gloss @ 60 Degree Angle	75-80	Applying material close to dew point will decrease gloss and may result in an amine blush
VOC's of Mixed Material	<8 g/L	EPA Method 24
Color Scale per ASTM D1500	N/A	
Solids by Volume Mixed	100%	
Storage	60F-90F	Store material between 60-90 degrees F in a protected dry location.
Odor	Very Subtle	
Application Thickness in MILS	As an unfilled membrane 20-30	
Disposal	Dispose of material, containers, solvents, etc., per Federal, State and local guideline, rules and laws	
Available Colors	Light Gray	
Mixing & Installation	Combine all of part A and B into a single container, large enough to accept the entire kit. Mix at 350 RPM for 2-3 minutes using an appropriate mixing blade and making sure not to introduce excessive air into the solution. Pour the entire content from the container onto the floor and follow normal squeegee and back roll or cut and roller techniques. Recoat within 24 hours. Clean tools with a solvent similar to Xylene or Acetone. When a thicker membrane is desired, mix PN 1620 S with a full kit. This mix will cover 160 square feet at 60 mils.and spread evenly up to 200 mils.	

Polymer Nation believes the information contained herein to be true and accurate. Information contained herein is for evaluation purposes only. Polymer Nation makes no warranty, express or implied based upon this literature and assumes no liability or responsibility for consequential or incidental damages as a result of the use of these products and systems described herein, including any warranty of merchantability or fitness. Last Rev. 4.14.22

TECHNICAL & SAFETY DATA SHEET

DATE PRINTED:	8/22/22
MSDS REF. No:	SP-20 Part A

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SP-20 Part A
PRODUCT CODE: SP-20 A
Revision Date: 07/28/2022
Supplier Details: Polymer Nation Chemical Company, LLC
1949 Swanson Court
Gurnee, IL 60031

Contact: Senior Chemist
Phone: 847-774-2592
Fax: 847-362-5149
Email: info@primecoat.com
Internet: primecoat.com

Transportation emergency phone number: CHEMTREC, U.S.: (800) 424-9300 24 hours

2. HAZARDS IDENTIFICATION

Classification of Substance

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Specific target organ toxicity - Repeated exposure, 2
Environmental, Hazards to the aquatic environment - Acute, 1
Environmental, Hazards to the aquatic environment - Chronic, 1
Health, Acute toxicity, 4 Oral
Health, Serious Eye Damage/Eye Irritation, 2 A

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **WARNING**

GHS Hazard Pictograms:



GHS Hazard Statements:

H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H302 - Harmful if swallowed
H319 - Causes serious eye irritation

GHS Precautionary Statements:

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P264 - Wash thoroughly after handling.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
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 - Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredients

CAS#	%	Chemical Name
68479-98-1	25-50%	Benzenediamine, ar,ar-diethyl-ar-
108-32-7	25-50%	Methyl-1,3-Dioxolan-2-one, 4-methyl-
70775-94-9	<10%	Sulfonic acids, C10-18-alkane, Ph esters

4. FIRST AID MEASURES

General information: Symptoms of poisoning may even occur after several hours; therefore, medical observation for at least 48 hours after the accident.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Immediately rinse with water. If skin irritation continues, consult a doctor.

After eye contact: Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

Most important symptoms and effects, both acute and delayed: Nausea, cramp, profuse sweating, headache, dizziness, breathing difficulty.

TECHNICAL & SAFETY DATA SHEET

Hazards: Danger of cerebral oedema, danger of convulsion, danger of disturbed cardiac rhythm.

Indication of any immediate medical attention and special treatment needed: If swallowed, gastric irrigation with added, activated carbon. Monitor circulation. Medical supervision for at least 48 hours. If necessary, oxygen respiration treatment.

5. FIRE FIGHTING MEASURES

Flash Point: 390 °F / 199 °C

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

For safety reasons unsuitable extinguishing agents: None.

Special hazards arising from the substance or mixture: Formation of toxic gases is possible during heating or in case of fire.

Advice for firefighters: Protective equipment - Wear self-contained respiratory protective device. Wear fully protective suit.

Additional information: Cool endangered receptacles with water spray.

6. ACCIDENTAL RELEASE MEASURES

Use respiratory protective device against the effects of fumes / dust / aerosol. Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

Environmental precautions: Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/surface or ground water.

Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste.

7. HANDLING AND STORAGE

Handling Precautions: Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols. Information about fire - and explosion protection: No special measures required.

Storage Requirements: 1). Requirements to be met by storerooms and receptacles: Store in a cool location. Avoid storage near extreme heat, ignition sources or open flame. 2). Information about storage in one common storage facility: Do not store together with oxidizing and acidic materials. Store away from foodstuffs.

Further information about storage conditions: Store in cool, dry conditions in well-sealed receptacles.

8. EXPOSURE CONTROLS\PERSONAL PROTECTION

Engineering Controls: Ensure good ventilation / exhaustion at the workplace. Prevent formation of aerosols. Ensure compliance with all relevant OSHA regulations.

Personal Protective Equipment

General protective and hygienic measures: Keep away from foodstuffs, beverages, and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Do not inhale gases / fumes / aerosols.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation. Use suitable respiratory protective device when aerosol or mist is formed.

Protection of hands: Protective gloves. The glove material must be impermeable and resistant to the product / the substance / the preparation.

Glove Material: Due to missing tests, no recommendation to the glove material can be provided for the product / the preparation / the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material: The exact break through time must be found by contacting the manufacturer of the protective gloves and must be observed.

Eye protection: Safety glasses.

Body protection: Protective work clothing.

Limitation and supervision of exposure into the environment: No further relevant information available.

Risk management measures: No further relevant information available.

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical State:	Dark Brown/Amber Liquid	Flash Point:	390 °F / 199 °C
Specific Gravity or Density:	1,02 g/cm ³	Autoignition Temperature:	788 °F / 420 °C

10. STABILITY AND REACTIVITY

Chemical Stability: No decomposition if used and stored according to specifications.

Conditions to Avoid: Store away from oxidizing agents. Toxic fumes may be released if heated above the decomposition point.

Materials to Avoid – Hazardous: Reacts with strong oxidizing agents. Reacts with strong acids.

Decomposition – Hazardous: Carbon monoxide and carbon dioxide. Nitrogen oxides.

Polymerization: Exothermic polymerization.

11. TOXICOLOGICAL INFORMATION

LD/LC50 values relevant for classification: 68479-98-1 diethylmethylbenzenediamine

Oral LD50 738 mg/kg (rat) Dermal; LD50 >2000 mg/kg (rat)

Primary irritant effect: 1). **On the skin** - Slight irritant effect on skin and mucous membranes; 2). **On the eye** - Irritating effect.

TECHNICAL & SAFETY DATA SHEET

Sensitization: No sensitizing effects known.

Additional toxicological information: The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Harmful | Irritant | Toxic and/or corrosive effects may be delayed up to 24 hours.

Repeated dose toxicity: May cause damage to organs through prolonged or repeated exposure.

12. ECOLOGICAL INFORMATION

Aquatic toxicity: Toxic for aquatic organisms.

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Ecotoxicological effects: Remark: Very toxic for fish.

Additional ecological information | General notes:

This statement was deduced from the properties of the single components. Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment cannot be excluded. Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water. Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. Also poisonous for fish and plankton in water bodies. Very toxic for aquatic organisms.

Results of PBT and vPvB assessment PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS

Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Uncleaned Packaging: Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

DOT Shipping Information

DOT Proper Shipping Name:	N/A – not DOT regulated		
DOT Technical Name:	N/A		
DOT Hazard Class:	N/A	Hazard Subclass:	N/A
DOT ID Number:	N/A	Packing Group	N/A

IMDG

Technical Name:	Environmentally Hazardous Substance, Liquid,N.O.S. (diethylmethylbenzenediamine) MARINE POLLUTANT		
Hazard Class:	9	Hazard Subclass:	
ID Number:	UN3082	Packing Group	III
Special Marking:	Marine Pollutant (Fish & Tree)		

IATA

Technical Name:	Environmentally Hazardous Substance, Liquid,N.O.S. (diethylmethylbenzenediamine) MARINE POLLUTANT		
Hazard Class:	9	Hazard Subclass:	
ID Number:	UN3082	Packing Group	III
Special Marking:	Marine Pollutant (Fish & Tree)		

ADR

Technical Name:	Environmentally Hazardous Substance, Liquid,N.O.S. (diethylmethylbenzenediamine) MARINE POLLUTANT		
Hazard Class:	9	Hazard Subclass:	
ID Number:	UN3082	Packing Group	III
Special Marking:	Marine Pollutant (Fish & Tree)	Limited Quantities:	

Environmental Hazards: Product contains environmentally hazardous substances: diethylmethylbenzenediamine (marine pollutant)

Special Precautions for User: Warning: Miscellaneous dangerous substances and articles

Danger Code (Kemler): 90

EMS Number: F-A,S-F

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

15. REGULATORY INFORMATION

Component (CAS#) [%] – CODES

Benzenediamine, ar,ar-diethyl-ar-methyl- (68479-98-1) [25-50%] GADSL, TSCA

1,3-Dioxolan-2-one, 4-methyl- (108-32-7) [25-50%] HAP, TSCA

Sulfonic acids, C10-18-alkane, Ph esters (70775-94-9) [<10%] TSCA

Regulatory CODE Descriptions

GADSL = Global Automotive Declarable Substance List

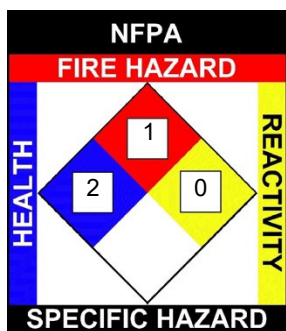
(GADSL) TSCA = Toxic Substances Control Act

HAP = Hazardous Air Pollutants

TECHNICAL & SAFETY DATA SHEET

16. OTHER INFORMATION

NFPA: HMIS III: Health = 2, Fire = 1, Reactivity = 0, Specific Hazard = n/a Health = 2(Chronic), Flammability = 1, Physical Hazard = 0



HMIS	
HEALTH	<input checked="" type="checkbox"/> 2
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	<input type="checkbox"/>

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

R21/22 Harmful in contact with skin and if swallowed.

R36 Irritating to eyes.

R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R53 May cause long-term adverse effects in the aquatic environment.

THE INFORMATION HEREIN HAS BEEN COMPILED FROM SOURCES BELIEVED TO BE RELIABLE AND IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, PRIME COAT CORPORATION CANNOT GIVE ANY GUARANTEES REGARDING INFORMATION FROM OTHER SOURCES, AND EXPRESSLY DOES NOT MAKE ANY WARRANTIES, NOR ASSUMES ANY LIABILITY FOR ITS USE.

TECHNICAL & SAFETY DATA SHEET

DATE PRINTED:	8/22/22
MSDS REF. No:	SP-20 Part B

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SP-20 Part B
PRODUCT CODE: SP-20 B
Revision Date: 07/28/2022
Supplier Details: Polymer Nation Chemical Company, LLC
1949 Swanson Court
Gurnee, IL. 60031
Contact: Senior Chemist
Phone: 847-774-2592
Fax: 847-362-5149
Email: info@primecoat.com
Internet: primecoat.com

Transportation emergency phone number: CHEMTREC, U.S.: (800) 424-9300 24 hours

2. HAZARDS IDENTIFICATION

Classification of Substance

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Respiratory or skin sensitization, 1 Respiratory
Health, Skin corrosion/irritation, 2
Health, Serious Eye Damage/Eye Irritation, 2 A
Health, Respiratory or skin sensitization, 1 Skin
Environmental, Hazards to the aquatic environment - Chronic, 3

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: DANGER

GHS Hazard Pictograms:



GHS Hazard Statements:

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction
H412 - Harmful to aquatic life with long lasting effects

GHS Precautionary Statements:

P285 - In case of inadequate ventilation wear respiratory protection.
P264 - Wash _ thoroughly after handling.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P342+311 - Call a POISON CENTER or doctor/physician.
P302+352 - IF ON SKIN: Wash with soap and water.

Hazards not Otherwise Classified (HNOC) or not Covered by GHS

Contains isocyanates. May produce an allergic reaction. Contains Poly[oxy(methyl-1,2-ethanediyl)], alpha.-hydro.-omega.-hydroxy-, polymer with 5-isocyanato-1- (isocyanatomethyl)-1,3,3-trimethylcyclohexane, 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate. May produce an allergic reaction.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredients

CAS #	%	Chemical Name
39323-37-0	50-100%	Poly[oxy(methyl-1,2-ethanediyl)], alpha.-hydro.-omega.-hydroxy-polymer with 5-isocyanato-1-
4098-71-9	<3%	Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-
13463-67-7	<5%	Titanium dioxide
1317-61-9	<5%	Iron oxide (Fe3O4)
71-43-2	<0.01%	Benzene

TECHNICAL & SAFETY DATA SHEET

4. FIRST AID MEASURES

General information: Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore, medical observation for at least 48 hours after the accident. In case of irregular breathing or respiratory arrest provide artificial respiration. Take affected persons out into the fresh air.

After inhalation: Supply fresh air. In case of irregular breathing or respiratory arrest provide artificial respiration. Seek immediate medical advice.

After skin contact: Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

After eye contact: Immediately remove contact lenses if possible. Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

Most important symptoms and effects, both acute and delayed: Asthma attacks, breathing difficulty, allergic reactions, nausea, cramp, dizziness, headache, profuse sweating, disorientation, cyanosis.

Hazards: Danger of impaired breathing. Danger of disturbed cardiac rhythm. Danger of pulmonary oedema. Danger of convulsion.

Indication of any immediate medical attention and special treatment needed: If swallowed, gastric irrigation with added, activated carbon.

Contains isocyanates. Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible. In cases of irritation to the lungs, initial treatment with corticosteroid inhalants. If necessary, oxygen respiration treatment. Later observation for pneumonia and pulmonary oedema. Medical supervision for at least 48 hours. If blue coloring appears (lips, earlobes, fingernails), give oxygen treatment as quickly as possible. Treat skin and mucous membrane with antihistamine and corticoid preparations.

5. FIRE FIGHTING MEASURES

Flash Point: 315 °F / 157 °C

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

For safety reasons unsuitable extinguishing agents: None.

Special hazards arising from the substance or mixture. During heating or in case of fire poisonous gases are produced.

Advice for firefighters: Protective equipment - Wear self-contained respiratory protective device. Wear fully protective suit.

Additional information: Cool endangered receptacles with water spray. No further relevant information available.

6. ACCIDENTAL RELEASE MEASURES

Use respiratory protective device against the effects of fumes / dust / aerosol. Isolate area and prevent access. Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Protect from heat.

Environmental precautions: Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste.

Additional Spill Procedures/Neutralization: Neutralization solutions:

- (1) Colorimetric Laboratories Inc. (CLI) decontamination solution.
- (2) A mixture of 75% water, 20% non-ionic surfactant (e.g., Plurafac SL-62, Tergitol TMN-10) and 5% n-propanol.
- (3) A mixture of 80% water, 20% non-ionic surfactant (e.g., Plurafac SL-62, Tergitol TMN-10).
- (4) A mixture of 90% water, 3-8% ammonium hydroxide, or concentrated ammonia, and 2% liquid detergent.

7. HANDLING AND STORAGE

Handling Precautions: Ensure good ventilation / exhaustion at the workplace. Open and handle receptacle with care. Prevent formation of aerosols. Take note of emission threshold.

Storage Requirements: 1). Information about fire and explosion protection: Keep respiratory protective device available. 2). Requirements to be met by storerooms and receptacles: Store in a cool location. Avoid storage near extreme heat, ignition sources or open flame. Store only in the original receptacle. Provide ventilation for receptacles. 3). Information about storage in one common storage facility: Do not store together with oxidizing and acidic materials. Do not store with alkalis (caustic solutions). Store away from foodstuffs.

Further information about storage conditions: Store in a cool, dry condition in well-sealed receptacles. Store receptacle in a well-ventilated area. Keep container tightly sealed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Ensure good ventilation / exhaustion at the workplace. Prevent formation of aerosols. Ensure compliance with all relevant OSHA regulations.

Personal Protective Equipment:

General protective and hygienic measures: Personal Protective Equipment must be selected to prevent inhalation of vapors and contact with skin and eyes. At a bare minimum, safety glasses, gloves, apron, and combination particle/vapor respirator should be worn. In some cases, supplied air, full body suits and boots will be needed. Keep away from foodstuffs, beverages, and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Store protective clothing separately. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin.

Respiratory protection: Combined Organic Vapor and Particulate Respirator is recommended for use during all processing activities.

Protection of hands: Protective gloves. The glove material must be impermeable and resistant to the product / the substance / the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Glove material: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material: The exact break through time must be found out by the manufacturer of the protective gloves and must be observed. Contact gloves made of the following materials are suitable: Neoprene gloves, Nitrile rubber NBR gloves, Butyl rubber BR

TECHNICAL & SAFETY DATA SHEET

gloves.

Eye protection: Contact lenses should not be worn. Safety glasses.

Body protection: Apron, boots, full head, face, and neck protection.

Limitation and supervision of exposure into the environment: No further relevant information available.

Risk management measures: Organizational measures should be in place for all activities involving this product.

Ingredients with limit values that require monitoring at the workplace: 4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

REL (USA) Short-term value: 0,18 mg/m³, 0,02 ppm / Long-term value: 0,045 mg/m³, 0,005 ppm / Skin TLV (USA) 0,045 mg/m³, 0,005 ppm

EL (Canada) Short-term value: C 0,01 ppm / Long-term value: 0,005 ppm / S EV (Canada) 0,005 ppm

DNELs No further relevant information available.

PNECs No further relevant information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical State:	Pigmented Liquid	Flash Point:	315 °F / 157 °C
Specific Gravity or Density:	1,05 g/cm ³	Volatile Organic Compound:	12,4 g/L

10. STABILITY AND REACTIVITY

Chemical Stability: No decomposition if used and stored according to specifications.

Conditions to Avoid: To avoid thermal decomposition, do not overheat.

Materials to Avoid: Reacts with water. Reacts with oxidizing agents. Reacts with alkali, amines, and strong acids. Contact with acids release toxic gases. Reacts with peroxides and other radical forming substances. Reacts with certain metals.

Decomposition – Hazardous: Isocyanate, nitrogen oxides, hydrogen cyanide (prussic acid), toxic metal oxide smoke, danger of forming toxic pyrolysis products, carbon monoxide, carbon dioxide.

Polymerization: Reacts with water.

11. TOXICOLOGICAL INFORMATION

Primary irritant effect: 1). **On the skin** – Irritant to skin and mucous membranes. 2). **On the eye** – irritating effect.

Sensitization: Sensitization possible through inhalation and / or skin contact.

Additional toxicological information: The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Toxic | Harmful | Irritant | Danger through skin absorption | Toxic and / or corrosive effects may be delayed up to 24-hours.

Repeated dose toxicity: May cause damage to organs through prolonged or repeated exposure. Repeated exposures may result in skin and / or respiratory sensitivity.

12. ECOLOGICAL INFORMATION

Aquatic toxicity: The product contains materials that are harmful to the environment.

Persistence and degradability: Not easily biodegradable.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Ecotoxicological effects: Remark: Harmful to fish. Due to mechanical actions of the product (e.g., agglutinations) damages may occur. The product is oxygen-consuming. The declared action may be partly caused by lack of oxygen.

Additional ecological information | General notes:

This statement was deduced from products with a similar structure or composition. The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary. Due to available data on eliminability / decomposition and bioaccumulation potential prolonged term damage of the environment cannot be excluded. Water hazard 1 (German Regulations) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course, or sewage system. Harmful to aquatic organisms.

Results of PBT and vPvB assessment: PBT: Not applicable; vPvB: Not applicable.

Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS

Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system. After prior treatment product must be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.

Uncleaned packaging: Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

DOT Shipping Information

DOT Proper Shipping Name:	N/A – not DOT regulated		
DOT Technical Name:	N/A		
DOT Hazard Class:	N/A	Hazard Subclass:	N/A
DOT ID Number:	N/A	Packing Group	N/A

IMDG

Technical Name:	Aliphatic Isocyanate Prepolymer		
Hazard Class:	N/A	Hazard Subclass:	
ID Number:	N/A	Packing Group	N/A
Special Marking:	N/A		

TECHNICAL & SAFETY DATA SHEET

IATA

Technical Name:	Aliphatic Isocyanate Prepolymer		
Hazard Class:	N/A	Hazard Subclass:	
ID Number:	N/A	Packing Group	N/A
Special Marking:	N/A		

ADR

Technical Name:	Aliphatic Isocyanate Prepolymer		
Hazard Class:	N/A	Hazard Subclass:	
ID Number:	N/A	Packing Group	N/A
Special Marking:	N/A	Limited Quantities:	N/A

Environmental Hazards:

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

15. REGULATORY INFORMATION

Component (CAS#) [%] - CODES

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-, polymer with 5-isocyanato-1- (isocyanatomethyl)-1,3,3-trimethylcyclohexane (39323-37-0) [50-100%]
TSCA

Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl- (4098-71-9) [<3%] EHS302, MASS, NJHS, OSHAWAC, PA, SARA313, TSCA, TXAIR

Titanium dioxide (13463-67-7) [<5%] MASS, OSHAWAC, PA, TSCA,
TXAIR Iron oxide (Fe3O4) (1317-61-9) [<5%] TSCA

Benzene (71-43-2) [<0.01%] CERCLA, CSWHS, EPCRAWPC, GADSL, HAP, HWRCRA, MASS, NJHS, NRC, OSHAHTS, OSHAWAC, PA, PRIPOL, PROP65, SARA313, TOXICPOL, TOXICRCRA, TSCA, TXAIR, TXHWL



WARNING

This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

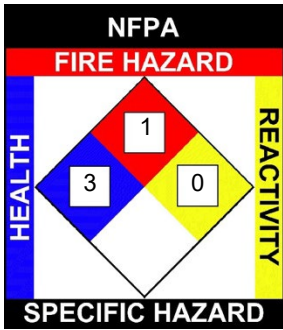
Regulatory CODE Descriptions

TSCA = Toxic Substances Control Act
EHS302 = Extremely Hazardous Substance
MASS = MA Massachusetts Hazardous Substances List
NJHS = NJ Right-to-Know Hazardous Substances
OSHA WAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
SARA313 = SARA 313 Title III Toxic Chemicals
TXAIR = TX Air Contaminants with Health Effects Screening Level
CERCLA = Superfund Cleanup Substances
CSWHS = Clean Water Act Hazardous Substances
EPCRAWPC = EPCRA Water Priority Chemicals
GADSL = Global Automotive Declarable Substance List (GADSL)
HAP = Hazardous Air Pollutants
HWRCRA = RCRA Hazardous Wastes
NRC = Nationally Recognized Carcinogens
OSHAHTS = OSHA Hazardous and Toxic Substances
PRIPOL = Clean Water Act Priority Pollutants
PROP65 = CA Prop 65
TOXICPOL = Clean Water Act Toxic Pollutants
TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)
TXHWL = TX Hazardous Waste List

16. OTHER INFORMATION

NFPA: Health = 3, Fire = 1, Reactivity = 0, Specific Hazard = n/a
HMIS III: Health = 3(Chronic), Flammability = 1, Physical Hazard = 0

TECHNICAL & SAFETY DATA SHEET



HMIS	
HEALTH	<input checked="" type="checkbox"/> 3
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	<input type="checkbox"/>

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

R23 Toxic by inhalation.

R36/37/38 Irritating to eyes, respiratory system, and skin.

R36/38 Irritating to eyes and skin.

R42/43 May cause sensitization by inhalation and skin contact.

R43 May cause sensitization by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

THE INFORMATION HEREIN HAS BEEN COMPILED FROM SOURCES BELIEVED TO BE RELIABLE AND IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, PRIME COAT CORPORATION CANNOT GIVE ANY GUARANTEES REGARDING INFORMATION FROM OTHER SOURCES, AND EXPRESSLY DOES NOT MAKE ANY WARRANTIES, NOR ASSUMES ANY LIABILITY FOR ITS USE.