

1. IDENTIFICATION OF SUBSTANCE

PRODUCT FORM	Mixture
PRODUCT NAME	Rugged Coatings Polyurea 403
PRODUCT USE	Part A of 2 component polyurethane system
SUPPLIER IDENTIFICATION	Rugged Coatings 3217 Messer Airport Hwy Birmingham, AL 35222
EMERGENCY TELEPHONE	(800) 424-9300, Chemtrec

2. HAZARD(S) IDENTIFICATION

GHS RATINGS:

Acute Toxicity (Inhalation), Category 4
 Skin Irritation, Category 2
 Eye Irritation, Category 2A
 Respiratory Sensitization, Category 1
 Skin Sensitization, Category 1
 Target Organ Toxicity (Single exposure), Category 3

GHS HAZARDS

H319: Causes serious eye irritation.
 H315: Causes skin irritation.
 H332: Harmful if inhaled.
 H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H317: May cause an allergic skin reaction.
 H335: May cause respiratory irritation.

GHS PRECAUTIONS

P260: Do not breathe dust/fume/gas/mist/vapours/spray.
 P271: Use only outdoors or in a well-ventilated area.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P501: Dispose of contents/container in accordance with existing federal, state and local environmental control laws.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P302+P352: IF ON SKIN: Wash with plenty of water/...
 P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
 P403+P233: Store in a well-ventilated place. Keep container tightly closed.
 P405: Store locked up.
 P264: Wash skin and face thoroughly after handling.

P363: Wash contaminated clothing before reuse.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P284: [In case of inadequate ventilation] wear respiratory protection.

LABEL ELEMENTS

PICTOGRAM



SIGNAL WORD

DANGER

3. COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURES

Isophorone Diisocyanate (CAS No) 4098-71-9	< 2%
Aliphatic Prepolymer (CAS No) Trade Secret	95 - 100%

4. FIRST-AID MEASURES

INHALATION

Move to an area free from further exposure. Extreme asthmatic reactions that may occur in sensitized persons can be lifethreatening. Get medical attention immediately. Administer oxygen or artificial respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours.

SKIN CONTACT

If direct skin contact with isocyanates occurs, immediately remove contaminated clothing and shoes. Wipe off the isocyanate product from the skin using dry towels or other similar absorbent fabric. If readily available, apply a polyglycol-based cleanser (e.g. Colorimetric Laboratories, Inc. (CLI) D-TAM™ Skin Cleanser) or corn oil. Wash with soap and warm water and pat dry. If a polyglycol-based cleanser is not available, wash with soap and warm water for 15 minutes. If available, use a wipe test pad to verify decontamination is complete (e.g. CLI SWYPE™). Get medical attention if irritation develops. Discard or wash contaminated clothing before reuse.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Use lukewarm water if possible. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Then remove contact lenses, if easily removable, and continue eye irrigation for not less than 15 minutes. Get medical attention.

INGESTION

Do NOT induce vomiting. Wash mouth out with water. Do not give anything by mouth to an unconscious person. Get medical attention.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Dry chemical, Carbon dioxide (CO₂), Foam, water spray for large

EXPLOSION HAZARDS:

Closed container may forcibly rupture under extreme heat or when contents are contaminated with water (CO₂ formed). Use coldwater spray to cool fire-exposed containers to minimize the risk of rupture. Large fires can be extinguished with large volumes of water applied from a safe distance, since reaction between water and hot diisocyanate can be vigorous.

FIRE FIGHTING PROCEDURES:

Firefighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and NFPA compliant helmet, hood, boots and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Exposure to heated diisocyanate can be extremely dangerous.

HAZARDOUS DECOMPOSITION PRODUCTS:

By Fire and High Heat: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke., Hydrogencyanide, Isocyanate, Isocyanic Acid, Other undetermined compounds

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES:

Implement site emergency response plan. Evacuate non-emergency personnel. The magnitude of the evacuation depends upon the quantity released, site conditions, and the ambient temperature. Isolate the area and prevent access of unauthorized personnel. Notify management. Call CHEMTREC at 1-800-424-9300 for assistance and advice.

Wear necessary personal protective equipment (PPE) as specified in the SDS or the site emergency response plan. Ventilate and remove ignition sources. Control the source of the leak. Contain the released material by damming, diking, retaining, or diverting into an appropriate containment area. Absorb or pump off as much of the spilled material as possible. When using absorbent, completely cover the spill area with suitable absorbent material (e.g., vermiculite, kitty litter, Oil-Dri®, etc...). Allow for the absorbent material to absorb the spilled liquid. Shovel the absorbent material into an approved metal container (i.e., 55-gallon salvage drum). Do not fill the container more than 2/3 full to allow for expansion, and do not tighten the lid on the container. Repeat application of absorbent material until all liquid has been removed from the surface. For spills involving a solid product, remove mechanically (sweep up, vacuum, shovel etc.) and collect and place into an approved metal container.

Decontaminate the spill surface area using a neutralization solution (see list of solutions on the SDS); scrubbing the surface with a broom or brush helps the decontamination solution to penetrate into porous surfaces. Wait at least 15 minutes after first application of the neutralization solution. Cover the area with absorbent material and shovel this into an approved metal container. Residual surface contamination can be checked using a wipe test pad to verify decontamination is complete (e.g. CLI Surface Swype™). If the wipe test pad demonstrates that isocyanate remains on the surface (red color on pad), repeat applications of neutralization solution, with scrubbing, followed by absorbent until the surface is decontaminated (no color change on wipe pad). Apply lid loosely to metal waste container (do not tighten the lid because carbon dioxide gas and heat can be generated from the neutralization process). With the lid still loosely in place, move the container to an isolated, well-ventilated area to allow release of carbon dioxide. After 72 hours, seal the container, and properly dispose of the waste material and any contaminated equipment (i.e., broom or brush) in accordance with existing federal, state and local regulations.

7. HANDLING AND STORAGE

GENERAL PROCEDURES

Do not breathe vapors, mists, or dusts. Use adequate ventilation to keep airborne isocyanate levels below the exposure limits. Wear respiratory protection if material is heated, sprayed, used in a confined space, or if the exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odor) are not adequate to prevent overexposure from inhalation. This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to vapor or spray mist. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash thoroughly after handling. Do not breathe smoke and gases created by overheating or burning this material. Decomposition products can be highly toxic and irritating. Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected.

STORAGE TEMPERATURE: 0°C (32°F) Minimum to 86°C (86°F) Maximum

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety goggles or safety glasses with side shields when handling and mixing this material.

SKIN: Any area of skin that could potentially come in contact with this diisocyanate, or a formulation containing this diisocyanate, must be covered by a permeation resistant barrier (e.g., butyl or nitrile rubber gloves, neoprene apron, chemical suit, etc.). When there is potential for a major splash directly onto the skin, such as when breaking into lines, a full chemical suit is required. When the application results in airborne vapor or mist, a full permeation resistant suit, including head covering, faceshield, gloves and overshoes, is required. Animal tests and other research indicate that skin contact with diisocyanates can play a role in causing isocyanate sensitization and respiratory reaction. This data reinforces the need to prevent direct skin contact with isocyanates.

RESPIRATORY: Airborne IPDI concentrations greater than the appropriate standard/guideline can occur in inadequately ventilated environments when IPDI is sprayed, aerosolized, or heated. In such cases, respiratory protection must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). The type of respiratory protection available includes (1) an atmosphere-supplying respirator such as a self-contained breathing apparatus (SCBA) or a supplied air respirator (SAR) in the positive pressure or continuous flow mode, or (2) an air-purifying respirator (APR). If an APR is selected, the following conditions must be met: (1) (a) the cartridge must be equipped with an end-of-service life indicator (ESLI) certified by NIOSH, or (1) (b) a change out schedule, based on objective information or data that will ensure that the cartridges are changed out before the end of their service life, must be developed and implemented. The basis for the change out schedule must be described in the written respirator program, and (2) the airborne IPDI concentration must be no greater than 10 times the appropriate standard/guideline. The recommended APR cartridge is an organic vapor/particulate filter combination cartridge (OV/P100).

WORK HYGIENIC PRACTICES: Local exhaust should be used to maintain levels below the TLV whenever this diisocyanate is heated, sprayed, or aerosolized. Standard reference sources regarding industrial ventilation (e.g., ACGIH Industrial Ventilation Manual) should be consulted for guidance about adequate ventilation. To ensure that published exposure limits have not been exceeded, monitoring for airborne diisocyanate should become part of the overall employee exposure characterization program. NIOSH, OSHA, Covestro, and others have developed sampling and analytical methods.

9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

ODOR:	SLIGHT IRRITANT
ODOR THRESHOLD:	NO DATA AVAILABLE
COLOR:	CLEAR
PHYSICAL STATE COMMENTS:	LIQUID
PH:	NO DATA AVAILABLE
FLASHPOINT AND METHOD:	TO 200°C
AUTOIGNITION TEMPERATURE:	TO 225°C
VAPOR DENSITY:	NO DATA AVAILABLE

BOILING POINT:	155°C TO 160°C
NOTES:	@0.67HPA
MELTING POINT:	20°C
THERMAL DECOMPOSITION:	NO DATA AVAILABLE
SOLUBILITY IN WATER:	INSOLUBLE IN WATER, REACTS WITH EVOLUTION OF CO ₂

10. STABILITY AND REACTIVITY

REACTIVITY:

This material will react slowly with water or moisture, but under normal use, no hazardous reaction will occur

STABILITY

Stable under normal conditions of use and storage.

POSSIBILITY OF HAZARDOUS REACTIONS:

Contact with moisture, other materials that react with isocyanates, or temperatures above 350 F (177 C), may cause polymerization, Moisture (water and high humidity) or high heat (temperatures greater than 350F (177C)) can cause pressure build-up with possible explosive rupture.

INCOMPATIBLE MATERIALS

By Fire and Thermal Decomposition: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke., Other undetermined compounds

11. TOXICOLOGICAL INFORMATION

SKIN CORROSION/IRRITATION: Irritating

SERIOUS EYE DAMAGE/IRRITATION: Severe Eye Irritation

RESPIRATORY OR SKIN SENSITISATION: Sensitizer

CARCINOGENICITY: No carcinogenic substances as defined by IARC, NTP and/or OSHA GERM CELL

MUTAGENICITY: Product is a blend of material that has been shown to be Ames Negative (non mutogenic)

12. ECOLOGICAL INFORMATION

BIOACCUMULATION/ACCUMULATION

Due to the low n-octanol-water partition coefficient, an accumulation in organisms is not to be expected. Not readily degradable.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose in accordance with applicable Federal, State, and Local regulations.

EMPTY CONTAINER: Empty containers retain product residue; observe all precautions for product. Do not heat or cut empty container with electric or gas torch because highly toxic vapors and gases are formed. Do not reuse without thorough commercial cleaning and reconditioning. If container is to be disposed, ensure all product residues are removed prior to disposal.

14. TRANSPORT INFORMATION

DOT REGULATED COMPONENTS:

PROPER SHIPPING NAME: Not Regulated

ROAD AND RAIL (ADR/RID)

PROPER SHIPPING NAME: Environmentally Hazardous Substances, Liquids, N.O.S.

UN NUMBER: 3082

HAZARD CLASS: 9

CLASSIFICATION CODE: Miscellaneous

PACKING GROUP: III

SPECIAL PROVISIONS: Marine pollutant

AIR (ICAO/IATA)

SHIPPING NAME: Environmentally Hazardous Substances, Liquids, N.O.S.





Polyurea 603 Safety Data Sheet

UN/NA NUMBER: 3082

PRIMARY HAZARD CLASS/DIVISION: 9

PACKING GROUP: III

SPECIAL PROVISIONS: Marine pollutant

LABEL: Miscellaneous

VESSEL (IMO/IMDG)

SHIPPING NAME: Not Regulated

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Refer to hazard classification information in Section 2.

313 REPORTABLE INGREDIENTS: Isophorone Diisocyanate CAS# 4098-71-9:

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: None

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All ingredients in this mixture are listed with the TSCA Chemical Substance Inventory.

REGULATIONS

MASSACHUSETTS, NEW JERSEY OR PENNSYLVANIA RIGHT TO KNOW SUBSTANCE LISTS: CONCENTRATION

98 - 100%, Components: Aliphatic Polyisocyanate based on IPDI, CAS-No. 39323-37-0

<2%, Components: Isophorone Diisocyanate(IPDI), CAS-No. 4098-71-9

NEW JERSEY ENVIRONMENTAL HAZARDOUS SUBSTANCES LIST AND/OR NEW JERSEY RTK SPECIAL HAZARDOUS SUBSTANCES LISTS: CONCENTRATION

<2%, Components: Isophorone Diisocyanate(IPDI), CAS-No. 4098-71-9

MASSACHUSETTS RIGHT TO KNOW EXTRAORDINARILY HAZARDOUS SUBSTANCE LIST: CONCENTRATION

<2%, Components: Isophorone Diisocyanate(IPDI), CAS-No. 4098-71-9

16. OTHER INFORMATION

SAFETY DATA SHEET ISSUED BY PRODUCT SAFETY DEPARTMENT

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Rugged Coatings. The data on these sheets relates only to the specific material designated herein. Rugged Coatings. assumes no legal responsibility for use or reliance upon this data. It is the user's responsibility to ensure that their activities comply with federal, state, or local laws.

