

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS number	Weight Concentration %
Petroleum distillates, hydrotreated light	64742-47-8	1.00%

Section 4 - FIRST AID MEASURES

First aid measures for different exposure routes

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation.

EYE CONTACT: Immediately flush eyes with plenty of water for least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

SKIN CONTACT: Remove contaminated clothing. Wash skin with soap and water. Get medical attention if irritation develops or persists.

INGESTION: If swallowed, do not induce vomiting. If victim is conscious and alert, give 2 to 4 cups full of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Treat symptomatically and supportively.

Section 5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, and Water Fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS: No unusual fire or explosion hazards noted. Keep containers tightly closed.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent buildup of steam. If water is used, fog nozzles are preferred.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

FOR NON-EMERGENCY PERSONNEL: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

FOR EMERGENCY RESPONDERS: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 7 - HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

CONDITIONS FOR SAFE STORAGE: Keep from freezing. Store in a dry, well ventilated place. Keep container tightly closed when not in use.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Petroleum distillates, hydrotreated light 64742-47-8	Not Established	Not Established	Not Established

Individual protection measures, such as personal protective equipment

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application. Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P306+P360	IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes
P308+P313	IF exposed or concerned: Get medical advice/attention
P332+P313	If skin irritation occurs: Get medical advice/attention
P333+P313	If skin irritation or a rash occurs: Get medical advice/attention
P337+P313	If eye irritation persists, get medical advice/attention
P405	Store locked up
P403+P233	Store in a well ventilated place. Keep container tightly closed
P501	Dispose of contents/container to ...

Signal Word: Danger



Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS number	Weight Concentration %
4,4'-Methylenediphenyl diisocyanate	101-68-8	30.00% - 40.00%
Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	30.00% - 40.00%
Benzene, 1,1'-methylenebis[isocyanato-	26447-40-5	10.00% - 20.00%
Isocyanic acid, polymethylenepolyphenylene ester, polymer with .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl)	57636-09-6	1.00% - 5.00%

Section 4 - FIRST AID MEASURES

First aid measures for different exposure routes

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

EYE CONTACT: Immediately flush eyes with plenty of water for a least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

SKIN CONTACT: Remove contaminated clothing. Wash skin with soap and water. Get medical attention if irritation develops or persists.

INGESTION: If swallowed, do not induce vomiting. If victim is conscious and alert, give 2 to 4 cups full of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Treat symptomatically and supportively.

Section 5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Use dry chemical, CO₂, Water spray (fog) or foam.

UNSUITABLE EXTINGUISHING MEDIA: Do not use water jet.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Flammable liquid and vapor. In a fire or if heated, a

pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides.

SPECIAL PROTECTIVE ACTIONS FOR FIREFIGHTERS: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

FOR NON-EMERGENCY PERSONNEL: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

FOR EMERGENCY RESPONDERS: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Methods and materials for containment and cleaning up

SMALL SPILL: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

LARGE SPILL: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Environmental Precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 7 - HANDLING AND STORAGE

Precautions for safe handling

PROTECTIVE MEASURES: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb

with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Approach release from upwind. Prevent entry into sewers, watercourses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

ADVICE ON GENERAL OCCUPATIONAL HYGIENE: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION			
Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
4,4'-Methylenediphenyl diisocyanate 101-68-8	Not Established	0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	NIOSH: 0.005 ppm TWA (listed under Methylene bisphenyl isocyanate); 0.05 mg/m ³ TWA 0.020 ppm Ceiling (10 min); 0.2 mg/m ³ Ceiling (10 min)
Isocyanic acid, polymethylenepolyphenylene ester 9016-87-9	Not Established	Not Established	Not Established
Benzene, 1,1'-methylenebis [isocyanato- 26447-40-5	Not Established	Not Established	Not Established
Isocyanic acid, polymethylenepolyphenylene ester, polymer with .alpha.-hydro.-omega.-hydroxypoly(oxy-1,2-ethanediyl) 57636-09-6	Not Established	Not Established	Not Established

APPROPRIATE ENGINEERING CONTROLS: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

ENVIRONMENTAL EXPOSURE CONTROLS: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures, such as personal protective equipment

GENERAL HYGIENE CONSIDERATIONS: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

EYE/FACE PROTECTION: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

HANDS PROTECTION: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

BODY PROTECTION: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

OTHER SKIN PROTECTION: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

RESPIRATORY PROTECTION: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid	Odor : N/A
Odor threshold : N/A	PH : N/A
Melting point : N/A	Boiling point : 300°C
Flash Pt(C/F) : 208°C, 406°F	Evaporation rate : Slower than ether
Flammability (solid, gas) : Non combustible liquid	LEL/UEL : N/A
Vapor pressure : N/A	Vapor density : N/A
Relative density : 1.22	Solubility : N/A
Partition coefficient:n- N/A	Autoignition temp : 240°C
octanol/water :	

Decomposition temp : N/A

Viscosity : N/A

Section 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

REACTIVITY: No specific test data related to reactivity available for this product or its ingredients.

CHEMICAL STABILITY: The product is stable.

POSSIBILITY OF HAZARDOUS REACTIONS: Under normal conditions of storage and use, hazardous reactions will not occur.

INCOMPATIBLE MATERIALS: Reactive or incompatible with the following materials: oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11 - TOXICOLOGICAL INFORMATION

Mixture Toxicity

Inhalation Toxicity LC50: 0mg/L

Component Toxicity

101-68-8	4,4'-Methylenediphenyl diisocyanate Inhalation LC50: 369 mg/m ³ (Rat)
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester Oral LD50: 49 g/kg (Rat) Inhalation LC50: 490 mg/m ³ (Rat)
26447-40-5	Benzene, 1,1'-methylenebis[isocyanato- Inhalation LC50: 0 mg/L (Rat)

Exposure to this material may affect the following organs:

Effects of Overexposure

EYE CONTACT: Causes serious eye irritation.

INHALATION: Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

SKIN CONTACT: Causes skin irritation. May cause an allergic skin reaction.

INGESTION: Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

EYE CONTACT: Adverse symptoms may include the following: pain or irritation watering, redness.

INHALATION: Adverse symptoms may include the following: respiratory tract irritation, coughing, wheezing and breathing difficulties asthma.

SKIN CONTACT: Adverse symptoms may include the following: irritation, redness.

INGESTION: No specific data.

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
26447-40-5	Benzene, 1,1'-methylenebis [isocyanato-	10 to 20%	

Section 12 - ECOLOGICAL INFORMATION

Component Ecotoxicity

None

Section 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: Dispose of in compliance with all local, state and federal government regulations .

Section 14 - TRANSPORT INFORMATION

This material is classified for transport as follows:

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	Non-Regulated Material			

Section 15 - REGULATORY INFORMATION

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING!

This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

- None

CERCLA-SARA Hazard Category: This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

- 101-68-8 4,4'-Methylenediphenyl diisocyanate 30 to 40 %

Sara Section 313: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

- None

Section 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)

HEALTH	2	HMIS & NFPA Hazard Rating Legend * = Chronic Health Hazard 0 = INSIGNIFICANT 1 = SLIGHT 2 = MODERATE 3 = HIGH
FLAMMABILITY	1	
PHYSICAL HAZARD	1	
PERSONAL PROTECTION	B	

Westcoat Specialty Coating Systems believes, to the best of its knowledge, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Westcoat Specialty Coating Systems makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Reviewer Revision

Date Prepared: 2/5/2019