

SAFETY DATA SHEET

PRODUCT CODE: 343

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: NP343 PART A
PRODUCT CODES: 343 A

MANUFACTURER: National Polymers Inc.
STREET ADDRESS: 9 Guttman Avenue
CITY, STATE, ZIP: Charleroi, Pa. 15022

INFORMATION PHONE: 724-483-9300
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: 724-483-9306

Chemical Name or Class: Polyol/solvent mixture

SECTION 2: HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: (H227-Flammable liquids category 4), (H315-Skin corrosion/irritation category 2), (H319-Serious eye damage/eye irritation category 2A), (H336-STOT-single exposure; narcotic effects category 3), (H304-Aspiration Hazard category 1)

GHS Label Elements and Precautionary Statements:

Label Elements: Health hazard, Exclamation Mark



Hazard Statements: **DANGER**

H227 Warning: Combustible liquid
H315 Warning: Causes mild skin irritation
H319 Warning: Causes serious eye irritation
H336 Warning: May cause drowsiness or dizziness
H304 **Danger:** May be fatal if swallowed and enters airways

Precautionary statements:

P102 Keep out of reach of children.
P103 Read label before use
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. — No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P264 Wash skin thoroughly after handling.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P271 Use only outdoors or in a well-ventilated area.

Response

P370+P378 In case of fire: Use DRY CHEMICAL, CO2, ALCOHOL RESISTANT FOAM OR WATER FOG for extinction.
P302+P352 IF ON SKIN: wash with plenty of soap and water.
P332+P313 IF SKIN irritation occurs: Get medical advice/attention.
P362+P364 take off contaminated clothing and wash it before reuse.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 IF eye irritation persists: Get medical advice/attention.
P304+P340+P312 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 Do NOT induce vomiting.

Storage:

P403+P235+P233 Store in a well-ventilated place. Keep cool. Keep container tightly closed.
P405 Store locked up.

Disposal:

P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>WEIGHT %</u>
Solvent naphtha, heavy	64742-94-5	20-60
Polyol	proprietary	20-60
*Naphthalene	91-20-3	0-5
*1,2,4-trimethylbenzene	95-63-6	0-2

SAFETY DATA SHEET

PRODUCT CODE: 343

*INDICATES TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CFR 372.

Note: Ingredients listed without percentages, the percentages are considered a trade secret.

SECTION 4: FIRST AID MEASURES

GENERAL ADVICE:

Take proper precautions to ensure your own health and safety before attempting rescue or administering first aid. Wear protective clothing and gloves. Remove contaminated clothing. Move to a well ventilated area or outdoors.

EYES:

Immediately flush eye(s) with plenty of water. Remove contact lenses. If eye irritation persists get medical advice/attention.

SKIN:

After contact with skin, wash immediately with plenty of soap and water. Get medical attention if irritation or rash develops. Wash clothing before reuse. Clean shoes thoroughly before reuse.

INGESTION:

If swallowed, get medical attention immediately. Wash out mouth with water. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

INHALATION:

If inhaled, move affected persons to fresh air. If not breathing, give artificial respiration. Get medical attention immediately. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is labored, qualified personnel should administer oxygen.

MOST IMPORTANT SYMPTOMS AND EFFECTS (ACUTE AND DELAYED):

See section 2 and/or section 11. Exposure to high vapor concentrations of heavy aromatic solvents can cause central nervous system depression, dizziness, light headedness, headache, nausea, and loss of coordination.

NOTES TO PHYSICIAN:

Symptomatic and supportive therapy as needed. Following severe exposure, medically monitor for at least 48 hours. Symptoms of poisoning may appear hours later. Potential for chemical pneumonitis, treat appropriately.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR,
(% by volume)

UPPER: not available

LOWER: not available

FLASH POINT: > 145F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

DRY CHEMICAL, ALCOHOL RESISTANT FOAM, CO2, WATER FOG

UNSUITABLE EXTINGUISHING MEDIA:

AVOID HIGH VOLUME WATER JET, MAY SPREAD FIRE

SPECIAL EXPOSURE HAZARDS:

IN A FIRE OR IF HEATED, A PRESSURE INCREASE WILL OCCUR AND THE CONTAINER MAY BURST. PRODUCES OXIDES OF CARBON AND NITROGEN AS WELL AS ISOCYANATES. COMBUSTION PRODUCTS MAY BE TOXIC AND/OR IRRITATING. AVOID SMOKE.

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. PVC BOOTS, GLOVES, SAFETY HELMET AND PROTECTIVE CLOTHING SHOULD BE WORN.

SPECIAL REMARKS ON EXPLOSION HAZARDS:

DUE TO REACTION WITH WATER PRODUCING CO2 GAS, A HAZARDOUS BUILD-UP OF PRESSURE COULD RESULT IF CONTAMINATED CONTAINERS ARE RE-SEALED. CONTAINERS MAY BURST IF OVERHEATED.

SECTION 6: RELEASE MEASURES

PERSONAL PROTECTION:

Immediately contact emergency personnel. Isolate the area. Keep upwind avoiding inhalation of vapors. Clean up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including respiratory protection. Use suitable protective equipment (see section 8).

ENVIRONMENTAL PRECAUTIONS:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

METHODS FOR CLEANING UP:

Contain and adsorb large spillages onto an inert, non-flammable adsorbent carrier (such as earth, vermiculite or sand). Shovel into open-top drums or plastic bags for further decontamination if necessary.

SECTION 7: HANDLING AND STORAGE

HANDLING:

Put on appropriate personal protective equipment (see section 8). 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.

SAFETY DATA SHEET

PRODUCT CODE: 343

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. Keep in the original container or an approved alternative made from a compatible material. Keep tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

STORAGE:

Keep container in a cool, well-ventilated area. Keep container tightly closed. Safe storage temperature 60-100F.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	CAS#	Type	Limit/Standard	Notes	Source
Solvent naphtha, heavy	64742-94-5	TWA	500 ppm, 2000 mg/m3		OSHA Z1
Solvent naphtha, heavy	64742-94-5	TWA	200 mg/m3	total hydrocarbons	ACGIH
Solvent naphtha, heavy	64742-94-5	TWA	400 ppm, 1600 mg/m3		OSHA P0
Naphthalene	91-20-3	TWA	10 ppm		ACGIH
Naphthalene	91-20-3	STEL	15 ppm		ACGIH
Naphthalene	91-20-3	TWA	10 ppm, 50 mg/m3		NIOSH REL
Naphthalene	91-20-3	ST	15 ppm, 75 mg/m3		NIOSH REL
Naphthalene	91-20-3	TWA	10 ppm, 50 mg/m3		OSHA Z1
Naphthalene	91-20-3	TWA	10 ppm, 50 mg/m3		OSHA P0
Naphthalene	91-20-3	STEL	15 ppm, 75 mg/m3		OSHA P0
Benzene, 1,2,5-trimethyl-	526-73-8	TWA	25 ppm, 125 mg/m3		NIOSH REL
1,2,4-trimethylbenzene	95-63-6	TWA	25 ppm, 125 mg/m3		NIOSH REL

PREVENTATIVE MEASURES:

Conditions of use, adequacy of engineering or other control measures and actual exposures will dictate the need for specific protective devices at your workplace.

ENGINEERING CONTROLS:

Use local exhaust ventilation to maintain airborne concentrations below the TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. For guidance on engineering control measures refer to publications such as the ACGIH current edition of "Industrial Ventilation, a manual of Recommended Practice".

EYE PROTECTION:

Chemical safety goggles. If there is a potential for splashing, use a full face shield.

SKIN PROTECTION:

Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Clothing", published by ACGIH.

RESPIRATORY PROTECTION:

When the product is sprayed or heated without adequate ventilation, an approved MSHA/NIOSH positive pressure, supplied-air respirator may be required. Air purifying respirators equipped with organic vapor cartridges and a HEPA (P100) particulate filter may be used under certain conditions when a cartridge change-out schedule has been developed in accordance with OSHA respiratory protection standard (29 CFR 1910.134).

HAND PROTECTION:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products. Nitrile rubber has shown good results. Thin latex or vinyl disposable gloves should be avoided. Consult with producers of protective gloves for suitability.

WORK HYGIENIC PRACTICES:

OBSERVE GENERAL GOOD HYGIENIC PRACTICES.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: TRANSPARENT DARK BLUE LIQUID WITH HYDROCARBON LIKE ODOR

BOILING POINT OR RANGE: > 350F

VAPOR DENSITY (AIR = 1): Not available

SPECIFIC GRAVITY (H2O = 1): 0.95

EVAPORATION RATE: VERY SLOW

SOLUBILITY IN WATER: NEGLIGIBLE

Odor Threshold: N/A

pH: N/A

Melting point/freezing point: N/A

Vapor Pressure: N/A

Auto Ignition Temperature: > 840F

Explosive properties: Non-explosive in the presence of the following materials or conditions: Open flames, sparks, and static discharge and shocks and mechanical impacts.

Decomposition Temperature: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY AND REACTIVITY:

Stable at room temperature.

CONDITIONS OF INSTABILITY:

Avoid high temperatures.

INCOMPATIBILITY (MATERIAL TO AVOID):

Strong oxidizing agents, unintended isocyanates.

HAZARDOUS POLYMERIZATION:

Polymerization may occur with incompatible reactants, especially strong oxidizers.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

Carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂), hydrocarbons and other undetermined components.

SECTION 11: TOXICOLOGICAL INFORMATION

No data for the product itself.

Component data:**Acute Toxicity Inhalation:**

Solvent naphtha, heavy CAS# 64742-94-5 – Minimally toxic. Exposure to levels exceeding the TLV or PEL may result in central nervous system depression. Symptoms include: drowsiness, dizziness and loss of coordination. LC50, rat, male/female: > 4600 mg/m³, 4h.

Naphthalene CAS# 91-20-3 – no data available.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

Acute Toxicity Dermal:

Solvent naphtha, heavy CAS# 64742-94-5 – Minimally toxic. May cause dryness leading to itching and dermatitis. LD50, rabbit, > 3000 mg/kg.

Naphthalene CAS# 91-20-3 – no data available.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

Acute Toxicity Oral:

Solvent naphtha, heavy CAS# 64742-94-5 – Minimally toxic. May cause gastro-intestinal pain, coughing, headaches, dizziness, diarrhea, nausea, vomiting and unconsciousness. LD50, rat, male/female: > 5000 mg/kg.

Naphthalene CAS# 91-20-3 – no data available.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

Skin Corrosion/Irritation:

Solvent naphtha, heavy CAS# 64742-94-5 – Causes skin irritation, redness, dryness or roughness. Not considered a skin corrosive.

Naphthalene CAS# 91-20-3 – no data available.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

Eye Damage/Irritation:

Solvent naphtha, heavy CAS# 64742-94-5 – Irritating to eyes. Not expected to cause serious eye damage.

Naphthalene CAS# 91-20-3 – no data available.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

Sensitization (Respiratory):

Solvent naphtha, heavy CAS# 64742-94-5 – Did not cause sensitization in laboratory animals.

Naphthalene CAS# 91-20-3 – no data available.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

Sensitization (Skin):

Solvent naphtha, heavy CAS# 64742-94-5 – Not expected to be a skin sensitizer.

Naphthalene CAS# 91-20-3 – no data available.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

Carcinogenicity:

Solvent naphtha, heavy CAS# 64742-94-5 – not considered a human carcinogen as defined by the IARC, NTP, OSHA.

Naphthalene CAS# 91-20-3 – IARC 2B – 2B, possible human carcinogen. ACGIH – A3, confirmed animal carcinogen (relevance to humans unknown). NTP – Reasonably anticipated to be a human carcinogen.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

Germ cell Mutagenicity:

Solvent naphtha, heavy CAS# 64742-94-5 – Negative.

Naphthalene CAS# 91-20-3 – no data available.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

Reproductive Toxicity:

Solvent naphtha, heavy CAS# 64742-94-5 – No reproductive effects. No teratogenic effects on fetal development.

Naphthalene CAS# 91-20-3 – no data available.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

STOT single exposure:

Solvent naphtha, heavy CAS# 64742-94-5 – Inhalation: central nervous system, may cause drowsiness and/or dizziness. Possible narcotic effects including nausea and vomiting when over exposed to levels beyond the TLV or PEL.

Naphthalene CAS# 91-20-3 – no data available.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

STOT repeated exposure:

Solvent naphtha, heavy CAS# 64742-94-5 – Not expected to cause organ damage from prolonged or repeated exposure. Based on the physical-chemical properties of this material when compared with test data from similar compounds.

Naphthalene CAS# 91-20-3 – no data available.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

Aspiration Hazard:

SAFETY DATA SHEET

PRODUCT CODE: 343

Solvent naphtha, heavy CAS# 64742-94-5 – Aspiration into the lungs if swallowed or when vomiting may cause chemical pneumonitis which can be fatal.

Naphthalene CAS# 91-20-3 – no data available.

1,2,4-trimethylbenzene CAS# 95-63-6 – no data available

SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Persistence and degradability:

Solvent naphtha, heavy CAS# 64742-94-5 – In aquatic environments, this component does not readily biodegrade. Readily biodegrades into the atmosphere, soils.

Mobility:

Solvent naphtha, heavy CAS# 64742-94-5 – No data available

Bioaccumulation:

Solvent naphtha, heavy CAS# 64742-94-5 – Not likely to bioaccumulate.

Ecotoxicity effects:

Solvent naphtha, heavy CAS# 64742-94-5 – No data available

Aquatic toxicity:

Solvent naphtha, heavy CAS# 64742-94-5 – Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects. Avoid dispersal of spilled material and runoff from contact with the soil, waterways, drains and sewers. Improper or unprofessional handling or disposal can create an environmental hazard.

SECTION 13: WASTE DISPOSAL

WASTE DISPOSAL METHOD:

DISPOSE OF MATERIAL AS A HAZARDOUS WASTE ACCORDING TO FEDERAL, STATE, AND LOCAL REGULATIONS.

SECTION 14: Transport Information

DOT: NOT REGULATED

IMO/IMDG: NOT REGULATED

SECTION 15: REGULATORY INFORMATION

No data for the product itself.

Component data:

U.S. Toxic Substances Control Act (TSCA 8b):

All components are listed or exempted.

CERCLA – reportable quantity, calculated:

Naphthalene CAS# 91-20-3 – 3,000 lbs. (380 gallons)

SARA 304 Extremely Hazardous Substances RQ:

Does not contain any components subject to 304 EHS RQ.

SARA 311/312:

Acute Health Hazard. Chronic Health Hazard.

EPA Community Right to Know Act (EPCRA) SARA Title III Section 313:

Naphthalene CAS# 91-20-3

Clean Air Act:

Naphthalene CAS# 91-20-3

Clean Water Act: (Section 311, Table 116.4A), (Section 311, Table 117.3), (Section 307)

Naphthalene CAS# 91-20-3

California Prop 65:

Naphthalene CAS# 91-20-3 – Known to the State of California to cause cancer.

DRC Conflict materials:

Based upon information from our suppliers, this product is “DRC Conflict Free” as defined by the SEC Conflict Minerals Final Rule.

Canadian Regulations:

All components are listed or exempted on Canadian DSL.

SECTION 16: OTHER INFORMATION

HMIS HAZARD CLASSIFICATION

HEALTH: 3

FLAMMIBILITY: 1

REACTIVITY: 0

PERSONAL PROTECTIVE EQUIPMENT: G

DISCLAIMER: THE INFORMATION HERE IN IS BASED ON THE DATA AVAILABLE AND IS BELIEVED TO BE ACCURATE. HOWEVER, THE MANUFACTURER MAKES NO WARRANTY EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS OBTAINED FROM THE USE THEREOF. ACCORDINGLY, WE ASSUME NO RESPONSIBILITY FOR INJURY FROM THE USE OF THIS PRODUCT.

N/A = Not Available

Revision date: 4/27/21

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: NP343 PART B
PRODUCT CODES: 343 B

MANUFACTURER: National Polymers Inc.
STREET ADDRESS: 9 Guttman Avenue
CITY, STATE, ZIP: Charleroi, Pa. 15022

INFORMATION PHONE: 724-483-9300
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: 724-483-9306

Chemical Name or Class: diisocyanate/solvent mixture

SECTION 2: HAZARDS IDENTIFICATION**Hazard Overview**

GHS Classification: (H227-Flammable liquid category 4), (H302+H332-Acute toxicity oral/inhalation category 4), (H315-skin irritation/corrosion category 2), (H319-serious eye damage/eye irritation category 2A), (H334-sensitization, respiratory category 1), (H317-sensitization, skin category 1B), (H351-carcinogenicity category 2), (H335+H336-STOT-single exposure; narcotic effects category 3), (H372-STOT-repeated exposure; respiratory system category 1), (H304-aspiration hazard category 1)

GHS Label Elements and Precautionary Statements:

Label Elements: Health hazard, Exclamation Mark

**Hazard Statements: DANGER**

H227 Warning: Combustible liquid.
H302+H332 Warning: Harmful if swallowed or inhaled.
H315 Warning: Causes skin irritation.
H319 Warning: Causes serious eye irritation.
H334 **Danger:** May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 Warning: May cause an allergic skin reaction.
H351 Warning: Suspected of causing cancer.
H335+H336 Warning: May cause respiratory irritation. May cause drowsiness or dizziness.
H372 **Danger:** Causes damage to organs (respiratory system) through prolonged or repeated exposure.
H304 **Danger:** May be fatal if swallowed and enters airways.

Precautionary statements:

P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. — No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P285 [In case of inadequate ventilation] Wear respiratory protection.
P272 Contaminated work clothing should not be allowed out of the workplace.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fume/gas/mist/vapors/spray

Response

P370+P378 In case of fire: Use DRY CHEMICAL, CO₂, ALCOHOL RESISTANT FOAM OR WATER FOG for extinction.
P301+P304+P312 IF SWALLOWED or INHALED: Call a POISON CENTER or doctor if you feel unwell.
P330 Rinse mouth.
P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P302+P352 IF ON SKIN: wash with plenty of soap and water.
P332+P313 IF SKIN irritation occurs: Get medical advice/attention.
P362 Take off contaminated clothing.
P305+P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 IF eye irritation persists: Get medical advice/attention.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention.
P363 Avoid contact during pregnancy/while nursing.
P308+P313 IF exposed or concerned: Get medical advice/attention.

SAFETY DATA SHEET

PRODUCT CODE: 343

P314 Get medical advice/attention if you feel unwell.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

Storage:

P403+P233+P235 Store in a well-ventilated place. Keep container tightly closed. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>WEIGHT %</u>
*4,4'-Diphenylmethane Diisocyanate	101-68-8	15-45
Solvent naphtha, heavy	64742-94-5	20-60
*Polymeric Diphenylmethane Diisocyanate	9016-87-9	10-40
Methyl-naphthalenes, mixed isomers	proprietary	1-15
*Naphthalene	91-20-3	1-5

*TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CFR 372.

Note: Ingredients listed without percentages, the percentages are considered a trade secret.

SECTION 4: FIRST AID MEASURES

GENERAL ADVICE:

Take proper precautions to ensure your own health and safety before attempting rescue or administering first aid. Wear protective clothing and gloves. Remove contaminated clothing. Move to a well ventilated area or outdoors.

EYES:

IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE LIFTING UPPER AND LOWER LIDS, GET IMMEDIATE MEDICAL ASSISTANCE.

SKIN:

After contact with skin, wash immediately with plenty of soap and water. Get medical attention if irritation or rash develops. Wash clothing before reuse. Clean shoes thoroughly before reuse. An MDI study has demonstrated that a polyglycol based skin cleanser or corn oil may be more effective than soap and water.

INGESTION:

If swallowed, get medical attention immediately. Wash out mouth with water. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

INHALATION:

If inhaled, move affected persons to fresh air. If not breathing, give artificial respiration. Get medical attention immediately. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is labored, qualified personnel should administer oxygen.

MOST IMPORTANT SYMPTOMS AND EFFECTS (ACUTE AND DELAYED):

Most important symptoms and effects are described in section 2 and/or section 11. Diphenylmethane Diisocyanate (MDI) vapors or mist at levels above the TLV or PEL can irritate the respiratory tract (nose, throat, lungs). Respiratory sensitization may result in allergic or asthmatic like symptoms including difficulty breathing, coughing, shortness of breath and wheezing. These symptoms may be delayed several hours after exposure. These effects are usually reversible. Persons with a preexisting bronchial hyper-reactivity to MDI may respond to levels below the TLV or PEL with similar asthmatic like symptoms. Exposure to high vapor concentrations of heavy aromatic solvents can cause central nervous system depression, dizziness, light headedness, headache, nausea, and loss of coordination.

NOTES TO PHYSICIAN:

Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral parenteral corticosteroids. Specific antidotes or neutralizers to isocyanates do not exist. Potential for chemical pneumonitis, treat appropriately.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, **UPPER:** not available
(% by volume) **LOWER:** not available

FLASH POINT: 145F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

DRY CHEMICAL, ALCOHOL RESISTANT FOAM, CO2, WATER FOG

UNSUITABLE EXTINGUISHING MEDIA:

AVOID HIGH VOLUME WATER JET, MAY SPREAD FIRE

SPECIAL EXPOSURE HAZARDS:

SAFETY DATA SHEET

PRODUCT CODE: 343

IN A FIRE OR IF HEATED, A PRESSURE INCREASE WILL OCCUR AND THE CONTAINER MAY BURST. PRODUCES OXIDES OF CARBON AND NITROGEN AS WELL AS ISOCYANATES. COMBUSTION PRODUCTS MAY BE TOXIC AND/OR IRRITATING. AVOID SMOKE.

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. PVC BOOTS, GLOVES, SAFETY HELMET AND PROTECTIVE CLOTHING SHOULD BE WORN.

SPECIAL REMARKS ON EXPLOSION HAZARDS:

DUE TO REACTION WITH WATER PRODUCING CO₂ GAS, A HAZARDOUS BUILD-UP OF PRESSURE COULD RESULT IF CONTAMINATED CONTAINERS ARE RE-SEALED. CONTAINERS MAY BURST IF OVERHEATED.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION:

Immediately contact emergency personnel. Isolate the area. Keep upwind avoiding inhalation of vapors. Clean up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including respiratory protection. Use suitable protective equipment (see section 8).

ENVIRONMENTAL PRECAUTIONS:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

METHODS FOR CLEANING UP:

Contain and adsorb large spillages onto an inert, non-flammable adsorbent carrier (such as earth, vermiculite or sand). Shovel into open-top drums or plastic bags for further decontamination if necessary. Do not tightly seal containers as pressure from generated gases may result in container rupture. Wash the spillage area clean with liquid decontaminant. Test atmosphere for MDI. Neutralize small spillages with decontaminant. Remove and properly dispose of residues (see section 13). Notify applicable government authorities if release is reportable. The CERCLA for 4,4-MDI is 5,000 lbs. (see CERCLA information in section 15).

SECTION 7: HANDLING AND STORAGE

HANDLING:

Put on appropriate personal protective equipment (see section 8). 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. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material. Keep tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

STORAGE:

Keep container in a cool, well-ventilated area. Keep container tightly closed. Keep away from moisture. Due to reaction with water producing CO₂ gas, a hazardous build-up of pressure may result if contaminated containers are resealed. Do not reseat contaminated containers. Uncontaminated containers, free of moisture, may be resealed only after placing under a nitrogen blanket. Do not store in containers made of copper, copper alloys or galvanized surfaces. Safe storage temperature: 60-100° F.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:

Component	CAS#	Type	Limit/Standard	Notes	Source
4,4'-Diphenylmethane Diisocyanate	101-68-8	TWA	0.005 ppm		ACGIH
4,4'-Diphenylmethane Diisocyanate	101-68-8	CLV	0.02 ppm, 0.2 mg/m ³		OSHA Z1
Solvent naphtha, heavy	64742-94-5	TWA	500 ppm, 2000 mg/m ³		OSHA Z1
Solvent naphtha, heavy	64742-94-5	TWA	200 mg/m ³	total hydrocarbons	ACGIH
Solvent naphtha, heavy	64742-94-5	TWA	400 ppm, 1600 mg/m ³		OSHA P0
Naphthalene	91-20-3	TWA	10 ppm		ACGIH
Naphthalene	91-20-3	STEL	15 ppm		ACGIH
Naphthalene	91-20-3	TWA	10 ppm, 50 mg/m ³		NIOSH REL
Naphthalene	91-20-3	ST	15 ppm, 75 mg/m ³		NIOSH REL
Naphthalene	91-20-3	TWA	10 ppm, 50 mg/m ³		OSHA Z1
Naphthalene	91-20-3	TWA	10 ppm, 50 mg/m ³		OSHA P0
Naphthalene	91-20-3	STEL	15 ppm, 75 mg/m ³		OSHA P0

PREVENTATIVE MEASURES:

Conditions of use, adequacy of engineering or other control measures and actual exposures will dictate the need for specific protective devices at your workplace. Medical supervision of all employees who handle or come in contact with respiratory sensitizers is recommended. Persons with respiratory problems including asthmatic-type conditions, chronic bronchitis, or other chronic respiratory diseases or recurrent skin eczema or skin allergies should be evaluated for their suitability of working with this product. Once a person is diagnosed as sensitized, no further exposure to the material that caused sensitization should be permitted.

ENGINEERING CONTROLS:

SAFETY DATA SHEET

PRODUCT CODE: 343

Use local exhaust ventilation to maintain airborne concentrations below the TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. For guidance on engineering control measures refer to publications such as the ACGIH current edition of "Industrial Ventilation, a manual of Recommended Practice".

EYE PROTECTION:

Chemical safety goggles. If there is a potential for splashing, use a full face shield.

SKIN PROTECTION:

Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Equipment", published by ACGIH.

RESPIRATORY PROTECTION:

When the product is sprayed or heated without adequate ventilation, an approved MSHA/NIOSH positive pressure, supplied-air respirator may be required. Air purifying respirators equipped with organic vapor cartridges and HEPA (P100) particulate filter may be used under certain conditions when a cartridge change-out schedule has been developed in accordance with OSHA respiratory protection standard (29 CFR 1910.134).

HAND PROTECTION:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products. Nitrile rubber has shown good results. Thin latex or vinyl disposable gloves should be avoided. Consult with producers of protective gloves for suitability.

WORK HYGIENIC PRACTICES:

OBSERVE GENERAL GOOD HYGIENIC PRACTICES.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: DARK BROWN LIQUID WITH HYDROCARBON LIKE ODOR

BOILING POINT OR RANGE: > 350F

VAPOR DENSITY (AIR = 1): Not available

SPECIFIC GRAVITY (H₂O = 1): 1.1

EVAPORATION RATE: VERY SLOW

SOLUBILITY IN WATER: INSOLUABLE

Odor Threshold: N/A

pH: N/A

Melting point/freezing point: N/A

Vapor Pressure: N/A

Auto Ignition Temperature: > 840F

Explosive properties: Non-explosive in the presence of the following materials or conditions: Open flames, sparks, and static discharge and shocks and mechanical impacts.

Decomposition Temperature: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY AND REACTIVITY:

Stable at room temperature. Reaction with water (moisture) produces CO₂ gas. Exothermic reaction with materials containing active hydrogen groups. This product is insoluble with water and moisture laden air. It will react with water slowly at the interface creating a solid water-insoluble layer of polyuria and liberating carbon dioxide gas.

CONDITIONS OF INSTABILITY:

Avoid high temperatures.

INCOMPATIBILITY WITH VARIOUS SUBSTANCES:

Water, alcohols, amines, bases and acids.

HAZARDOUS POLYMERIZATION:

Polymerization may occur with incompatible reactants, especially strong bases (alkalies, tertiary amines, metal salts), water, or temperatures over 160C/320F.

HAZARDOUS DECOMPOSITION PRODUCTS:

Combustion products may include: carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂), hydrocarbons and other undetermined components.

SECTION 11: TOXICOLOGICAL INFORMATION

No data for the product itself.

Component data:

Acute Toxicity Inhalation:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – At room temperature, vapors are expected to be minimal due to the low vapor pressure (ability to evaporate) of both MDI and pMDI. MDI vapors or mists above the TLV or PEL can result in irritation of the respiratory tract (nose, throat, lungs). Symptoms include runny nose, shortness of breath, coughing or wheezing, chest tightness or difficulty breathing.

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 - At room temperature, vapors are expected to be minimal due to the low vapor pressure (ability to evaporate) of both MDI and pMDI. MDI vapors or mists above the TLV or PEL can result in irritation of the respiratory tract (nose, throat, lungs). Symptoms include runny nose, shortness of breath, coughing or wheezing, chest tightness or difficulty breathing.

Solvent naphtha, heavy CAS# 64742-94-5 – Minimally toxic. Exposure to levels exceeding the TLV or PEL may result in central nervous system depression. Symptoms include: drowsiness, dizziness and loss of coordination. LC50, rat, male/female: > 4600 mg/m³, 4h.

Naphthalene CAS# 91-20-3 – no data available.

Acute Toxicity Dermal:

SAFETY DATA SHEET

PRODUCT CODE: 343

Solvent naphtha, heavy CAS# 64742-94-5 – Minimally toxic. May cause dryness leading to itching and dermatitis. LD50, rabbit, > 3000 mg/kg.

Naphthalene CAS# 91-20-3 – no data available.

Acute Toxicity Oral:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – Low toxicity if swallowed, may irritate the digestive system if large amounts are swallowed.

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 - Low toxicity if swallowed, may irritate the digestive system if large amounts are swallowed

Solvent naphtha, heavy CAS# 64742-94-5 – Minimally toxic. May cause gastro-intestinal pain, coughing, headaches, dizziness, diarrhea, nausea, vomiting and unconsciousness. LD50, rat, male/female: > 5000 mg/kg.

Naphthalene CAS# 91-20-3 – no data available.

Skin Corrosion/Irritation:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – Repeated exposure may cause allergic type reactions including rash, itching, irritation and redness. Skin contact is unlikely to result in absorption of significant amounts. Cured material can be difficult to remove.

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 - Repeated exposure may cause allergic type reactions including rash, itching, irritation and redness. Skin contact is unlikely to result in absorption of significant amounts. Cured material can be difficult to remove.

Solvent naphtha, heavy CAS# 64742-94-5 – Causes skin irritation, redness, dryness or roughness. Not considered a skin corrosive.

Naphthalene CAS# 91-20-3 – no data available.

Eye Damage/Irritation:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – Causes eye irritation, swelling and redness. May cause temporary corneal injury.

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 - Causes eye irritation, swelling and redness. May cause temporary corneal injury.

Solvent naphtha, heavy CAS# 64742-94-5 – Irritating to eyes. Not expected to cause serious eye damage.

Naphthalene CAS# 91-20-3 – no data available.

Sensitization (Respiratory):

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – Concentrations above the TLV or PEL can cause allergic symptoms including asthma attack, bronchitis, bronchial spasms, and pulmonary edema. These symptoms can be delayed for several hours after exposure. These effects are usually reversible although decreased lung function has been associated with over exposure to isocyanates. Persons with a preexisting sensitivity to isocyanates may react to levels below the TLV or PEL. Use of this product in a manner consistent with the recommended application procedures and current exposure guidelines is expected to protect against these effects reported for MDI.

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 - Concentrations above the TLV or PEL can cause allergic symptoms including asthma attack, bronchitis, bronchial spasms, and pulmonary edema. These symptoms can be delayed for several hours after exposure. These effects are usually reversible although decreased lung function has been associated with over exposure to isocyanates. Persons with a preexisting sensitivity to isocyanates may react to levels below the TLV or PEL. Use of this product in a manner consistent with the recommended application procedures and current exposure guidelines is expected to protect against these effects reported for MDI.

Solvent naphtha, heavy CAS# 64742-94-5 – Did not cause sensitization in laboratory animals.

Naphthalene CAS# 91-20-3 – no data available.

Sensitization (Skin):

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – Some animal research studies have associated prolonged or repeated skin contact with skin sensitization and a possible role in respiratory isocyanate sensitization.

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 - Some animal research studies have associated prolonged or repeated skin contact with skin sensitization and a possible role in respiratory isocyanate sensitization.

Solvent naphtha, heavy CAS# 64742-94-5 – Not expected to be a skin sensitizer.

Naphthalene CAS# 91-20-3 – no data available.

Carcinogenicity:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – MDI is not considered a human carcinogen as defined by the IARC, NTP, OSHA.

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 – pMDI has been classified as IARC Group 3. There is inadequate evidence to describe its levels (6mg/kg for lifetime) resulted in tumor formation. pMDI is not considered a human carcinogen as defined by the IARC, NTP, OSHA.

Solvent naphtha, heavy CAS# 64742-94-5 – not considered a human carcinogen as defined by the IARC, NTP, OSHA.

Naphthalene CAS# 91-20-3 – IARC 2B – 2B, possible human carcinogen. ACGIH – A3, confirmed animal carcinogen (relevance to humans unknown). NTP – Reasonably anticipated to be a human carcinogen.

Germ cell Mutagenicity:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – no effects observed

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 – no effects observed

Solvent naphtha, heavy CAS# 64742-94-5 – Negative.

Naphthalene CAS# 91-20-3 – no data available.

Reproductive Toxicity:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – no effects observed

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 – no effects observed

Solvent naphtha, heavy CAS# 64742-94-5 – No reproductive effects. No teratogenic effects on fetal development.

Naphthalene CAS# 91-20-3 – no data available.

STOT single exposure:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – no data available

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 – no data available

Solvent naphtha, heavy CAS# 64742-94-5 – Inhalation: central nervous system, may cause drowsiness and/or dizziness. Possible narcotic effects including nausea and vomiting when over exposed to levels beyond the TLV or PEL.

Naphthalene CAS# 91-20-3 – no data available.

STOT repeated exposure:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – Irritation to lungs and nasal cavity. Tissue injury in the upper respiratory tract has been observed in laboratory animals repeatedly exposed to excessive levels of MDI/pMDI aerosol.

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 – Irritation to lungs and nasal cavity. Tissue injury in the upper respiratory tract has been observed in laboratory animals repeatedly exposed to excessive levels of MDI/pMDI aerosol.

Solvent naphtha, heavy CAS# 64742-94-5 – Not expected to cause organ damage from prolonged or repeated exposure. Based on the physical-chemical properties of this material when compared with test data from similar compounds.

Naphthalene CAS# 91-20-3 – no data available.

Aspiration Hazard:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – no data available

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 – no data available

Solvent naphtha, heavy CAS# 64742-94-5 – Aspiration into the lungs if swallowed or when vomiting may cause chemical pneumonitis which can be fatal.

Naphthalene CAS# 91-20-3 – no data available.

SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Persistence and degradability:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – In aquatic environments, will react with water to create CO₂ gas and insoluble polyureas. In atmospheric environments, material has a short tropospheric half-life. Not degradable. Not considered persistent.

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 - In aquatic environments, will react with water to create CO₂ gas and insoluble polyureas. In atmospheric environments, material has a short tropospheric half-life. Not degradable. Not considered persistent.

Solvent naphtha, heavy CAS# 64742-94-5 – In aquatic environments, this component does not readily biodegrade. Readily biodegrades into the atmosphere, soils.

Mobility:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – No data available

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 – No data available

Solvent naphtha, heavy CAS# 64742-94-5 – No data available

Bioaccumulation:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – Not considered to be bioaccumulative.

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 - Not considered to be bioaccumulative.

Solvent naphtha, heavy CAS# 64742-94-5 – Not likely to bioaccumulate.

Ecotoxicity effects:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – Not considered to be toxic.

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 – Not considered to be toxic.

Solvent naphtha, heavy CAS# 64742-94-5 – No data available

Aquatic toxicity:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – Not considered dangerous to aquatic species.

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 – Not considered dangerous to aquatic species.

Solvent naphtha, heavy CAS# 64742-94-5 – Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects. Avoid dispersal of spilled material and runoff from contact with the soil, waterways, drains and sewers. Improper or unprofessional handling or disposal can create an environmental hazard.

SECTION 13: WASTE DISPOSAL

WASTE DISPOSAL METHOD:

DISPOSE OF MATERIAL AS A HAZARDOUS WASTE ACCORDING TO FEDERAL, STATE, AND LOCAL REGULATIONS.

SECTION 14: Transport Information

DOT: NOT REGULATED (unless shipment is over 11,288#/5,120 KG)

IMO/IMDG: NOT REGULATED

SECTION 15: REGULATORY INFORMATION

No data for the product itself.

Component data:

U.S. Toxic Substances Control Act (TSCA 8b):

All components are listed or exempted.

CERCLA – reportable quantity, calculated:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8 – 15,000 lbs. (1900 gallons)

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9 – 15,000 lbs. (1900 gallons)

Naphthalene CAS# 91-20-3 – 3,000 lbs. (380 gallons)

SARA 304 Extremely Hazardous Substances RQ:

Does not contain any components subject to 304 EHS RQ.

SARA 311/312:

SAFETY DATA SHEET

PRODUCT CODE: 343

Acute Health Hazard. Chronic Health Hazard.

EPA Community Right to Know Act (EPCRA) SARA Title III Section 313:

4,4'-Diphenylmethane Diisocyanate CAS# 101-68-8

Polymeric Diphenylmethane Diisocyanate CAS# 9016-87-9

Naphthalene CAS# 91-20-3

Clean Air Act:

Naphthalene CAS# 91-20-3

Clean Water Act: (Section 311, Table 116.4A), (Section 311, Table 117.3), (Section 307)

Naphthalene CAS# 91-20-3

California Prop 65:

Naphthalene CAS# 91-20-3 – Known to the State of California to cause cancer.

DRC Conflict materials:

Based upon information from our suppliers, this product is "DRC Conflict Free" as defined by the SEC Conflict Minerals Final Rule.

Canadian Regulations:

All components are listed or exempted on Canadian DSL.

SECTION 16: OTHER INFORMATION

HMIS HAZARD CLASSIFICATION

HEALTH: 3 FLAMMIBILITY: 1 REACTIVITY: 1 PERSONAL PROTECTIVE EQUIPMENT: G

DISCLAIMER: THE INFORMATION HERE IN IS BASED ON THE DATA AVAILABLE AND IS BELIEVED TO BE ACCURATE. HOWEVER, THE MANUFACTURER MAKES NO WARRANTY EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS OBTAINED FROM THE USE THEREOF. ACCORDINGLY, WE ASSUME NO RESPONSIBILITY FOR INJURY FROM THE USE OF THIS PRODUCT.

N/A = Not Available

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