

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 03.03.2020

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ZFZ-314

SECTION 1: Identification

Product identifier

Product name: ZFZ-314



Recommended use of the product and restriction on use

Relevant identified uses: Not determined or not applicable.

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

United States

P.O.R. Products
38 Portman Road
New Rochelle, NY 10801
914-636-0700
www.PORproducts.com

Emergency telephone number:

North America

ChemTel Inc.
+1 800 255 3924 (24 hours)
+1 813 248 0585 (24 hours)

SECTION 2: Hazard(s) identification

GHS classification:

Skin irritation, category 2
Eye irritation, category 2A
Flammable liquids, category 2
Skin sensitization, category 1
Carcinogenicity, category 2
Specific target organ toxicity - single exposure, category 3, respiratory tract irritation
Specific target organ toxicity - single exposure, category 3, narcotic effects

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H225 Highly flammable liquid and vapor
H315 Causes skin irritation
H319 Causes serious eye irritation
H317 May cause an allergic skin reaction
H351 Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)

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H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness

Precautionary statements:

P264 Wash ... thoroughly after handling
P280 Wear protective gloves/protective clothing/eye protection/face protection
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
P233 Keep container tightly closed
P240 Ground/bond container and receiving equipment
P241 Use explosion-proof electrical/ ventilating/ lighting/.../ equipment
P242 Use only non-sparking tools
P243 Take precautionary measures against static discharge
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P272 Contaminated work clothing must 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
P271 Use only outdoors or in a well-ventilated area
P302+P352 IF ON SKIN: Wash with plenty of water/ ...
P321 Specific treatment (see ... on this label)
P332+P313 If skin irritation occurs: Get medical advice/attention
P362 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
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P370+P378 In case of fire: Use ... to extinguish
P333+P313 If skin irritation or rash occurs: Get medical advice/attention
P363 Wash contaminated clothing before reuse
P308+P313 IF exposed or concerned: Get medical advice/attention
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P312 Call a POISON CENTER/doctor/.../if you feel unwell
P403+P235 Store in a well-ventilated place. Keep cool
P405 Store locked up
P403+P233 Store in a well-ventilated place. Keep container tightly closed
P501 Dispose of contents/container to...

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 822-06-0	Hexamethylene diisocyanate	<0.3
CAS number: 28182-81-2	Hexamethylene diisocyanate, oligomers	25-50
CAS number: 95-63-6	1, 2, 4-Trimethylbenzene	0.5-3
CAS number: 98-82-8	Cumene	0.01-0.3

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CAS number: 1330-20-7	Xylene	0.01-0.15
CAS number: 64742-95-6	Solvent naphtha (petroleum), light arom.	1-3
CAS number: 123-86-4	n-Butyl acetate	1-3
CAS number: 108-67-8	Mesitylene	0.1-0.8
CAS number: 103-65-1	Propylbenzene	0.01-0.15
CAS number: 4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	<0.3
CAS number: 53880-05-0	3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	5-25
CAS number: 79-20-9	Methyl acetate	5-10
CAS number: 98-56-6	4-Chloro- α,α,α -trifluorotoluene	25-50

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Show this Safety Data Sheet to the doctor in attendance.

After inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If experiencing respiratory symptoms, seek medical advice/attention.

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If symptoms develop or persist, seek medical advice/attention.

After skin contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After eye contact:

Rinse eyes with plenty of water for several minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

Rinse eyes with plenty of gently flowing lukewarm water for 15 minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

After swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting

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occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Skin contact may result in redness, pain, burning and inflammation.

Eye contact may result in irritation, redness, pain, inflammation, itching, burning and tearing.

Product is highly flammable. Exposure to sources of ignition may cause physical injury.

Dermal exposure may cause an allergic skin reaction. Symptoms may include irritation, redness, pain, rash, inflammation, itching, burning and dermatitis.

Inhalation may have adverse effects on the respiratory tract. Symptoms may include cough, breathing difficulties, sore throat and inflammation of the mucous membrane lining the respiratory tract.

Inhalation may have adverse effects on the central nervous system. Symptoms may include drowsiness, dizziness, headache, nausea and lowering of consciousness. Acute overexposure via inhalation may result in respiratory distress, confusion and unconsciousness.

Delayed symptoms and effects:

Effects are dependent on exposure (dose, concentration, contact time).

Suspected of causing cancer.

Immediate medical attention and special treatment

Specific treatment:

Effects are dependent on exposure (dose, concentration, contact time).

If respiratory symptoms persist, seek medical attention.

Overexposure via inhalation requires urgent medical treatment.

Notes for the doctor:

Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Alcohol- resistant foam, Dry chemical or Carbon dioxide

Alcohol- resistant foam

Unsuitable extinguishing media:

None known

Do not use water jet as an extinguisher.

High- volume water jet

Specific hazards during fire-fighting:

Evacuate all personnel to a predetermined safe location, no less than 2,500 feet in all directions. Can explode or detonate under fire conditions. Burning material may produce toxic vapors.

Evacuate all personnel to a predetermined safe location, no less than 2,500 feet in all directions.

Can explode or detonate under fire conditions. Burning material may produce toxic vapors.

Special protective equipment for firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA)

Special precautions:

Avoid inhaling gases, fumes, mist, dust, vapor or aerosols. Avoid contact with eyes, skin, hair or clothing.

Eliminate all sources of ignition, heat, flames and other sources of heat

Avoid inhaling gases, fumes, mist, dust, vapor or aerosols.

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Avoid contact with eyes, skin, hair or clothing.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

Wear recommended personal protective equipment (See Section 8).

Avoid contact with eyes, skin and clothing. Eliminate all sources of ignition.

Ensure adequate ventilation.

Use spark-proof tools and explosion-proof equipment and provide adequate ventilation.

Shut off all possible sources of ignition and avoid friction and impact.

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Clean and neutralize spill area, tools and equipment by washing with water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

Isolate and post spill area.

Remove all sources of ignition.

Ventilate the area.

Wear suitable protective clothing, gloves and eye/face protection.

For personal protection see section 8

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Prevent from reaching drains, sewer or waterway.

If contamination of sewers or waterways has occurred advise local emergency services.

Avoid discharge into drains, water courses or onto the ground. Prevent further leakage if safe to do so.

Inform authorities if spill cannot be contained.

Keep material out of lakes, streams, ponds, and sewer drains.

Methods and material for containment and cleaning up:

Carefully sweep material into a designated PLASTIC waste container. Collect in plastic containers only.

Remove all sources of ignition, contain and collect spill. Absorb with a noncombustible absorbent material such as sand and containerize for disposal.

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Vacuum or sweep up material and place into a suitable disposal container. Wear a self-contained breathing apparatus and appropriate personal protection. Provide ventilation.

Clean and neutralize spill area, tools and equipment by washing with water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

Clean and neutralize spill area, tools and equipment by washing with water and soap.

Absorb rinsate and add to the collected waste.

Waste must be classified and labeled prior to recycling or disposal.

Dispose of waste as indicated in Section 13.

Reference to other sections:

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For disposal see section 13.

See Section 13 for waste disposal.

For further information refer to section 7 and section 13.

SECTION 7: Handling and storage

Precautions for safe handling:

Wear gloves and eye protection when handling, moving or using this product. Do not contaminate water, food, or feed by storage or disposal.

Avoid skin and eye contact and breathing in vapor. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc.) must be eliminated both in and near the work area. Do NOT smoke. Take precautionary measures against static discharges. Wash hands thoroughly after handling.

Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances.

Avoid contact with skin, eyes, and clothing.

Follow good hygiene procedures when handling chemical materials.

Refer to Section 8.

Follow proper disposal methods.

Refer to Section 13.

Do not eat, drink, smoke, or use personal products when handling chemical substances.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well ventilated place. Store away from sources of heat or ignition. Store away from incompatible materials described in Section 10. Keep containers closed when not in use

Store in cool location. Keep away from food and beverages. Protect from freezing and physical damage.

Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible materials.

Store in a cool, dry, well ventilated place.

Store away from sources of heat or ignition.

Store away from incompatible materials described in Section 10.

Keep containers closed when not in use

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
NIOSH	Hexamethylene diisocyanate	822-06-0	REL: 0.04 mg/m ³
	Hexamethylene diisocyanate	822-06-0	Ceiling Limit: 0.02 ppm
	Hexamethylene diisocyanate	822-06-0	Ceiling Limit: 0.14 mg/m ³
	1, 2, 4-Trimethylbenzene	95-63-6	REL: 25 ppm
	1, 2, 4-Trimethylbenzene	95-63-6	REL: 125 mg/m ³
	Cumene	98-82-8	REL: 50 ppm
	Xylene	1330-20-7	REL: 435 mg/m ³
	Xylene	1330-20-7	REL: 100 ppm
	Xylene	1330-20-7	REL: 655 mg/m ³
	Xylene	1330-20-7	REL: 150 ppm

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Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Solvent naphtha (petroleum), light arom.	64742-95-6	REL: 100 ppm (10-hour workday during a 40-hour workweek)
	n-Butyl acetate	123-86-4	REL: 150 ppm
	n-Butyl acetate	123-86-4	REL: 710 mg/m ³
	n-Butyl acetate	123-86-4	STEL: 200 ppm
	n-Butyl acetate	123-86-4	STEL: 950 mg/m ³
	n-Butyl acetate	123-86-4	IDLH: 1700 ppm
	Mesitylene	108-67-8	REL: 25 ppm
	Mesitylene	108-67-8	REL: 125 mg/m ³
	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	4098-71-9	REL: 0.005 ppm
	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	4098-71-9	REL: 0.045 mg/m ³
	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	4098-71-9	STEL: 0.02 ppm
	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	4098-71-9	STEL: 0.18 mg/m ³
	Methyl acetate	79-20-9	REL: 200 ppm
	Methyl acetate	79-20-9	REL: 610 mg/m ³
	Methyl acetate	79-20-9	STEL: 250 ppm
	Methyl acetate	79-20-9	STEL: 760 mg/m ³
	Cumene	98-82-8	REL: 245 mg/m ³
	Cumene	98-82-8	IDLH: 900 ppm
ACGIH	1, 2, 4-Trimethylbenzene	95-63-6	8-Hour TWA: 25 ppm
	Cumene	98-82-8	TWA: 50 ppm
	Xylene	1330-20-7	TWA: 100 ppm
	Xylene	1330-20-7	STEL: 150 ppm
	n-Butyl acetate	123-86-4	8-Hour TWA: 50 ppm
	n-Butyl acetate	123-86-4	15-Minute STEL: 150 ppm
	Mesitylene	108-67-8	8-Hour TWA: 25 ppm
	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	4098-71-9	8-Hour TWA: 0.005 ppm
	Methyl acetate	79-20-9	8-Hour TWA: 200 ppm
	Methyl acetate	79-20-9	15-Minute STEL: 250 ppm
Hexamethylene diisocyanate	822-06-0	TWA: 0.005 ppm	
OSHA	1, 2, 4-Trimethylbenzene	95-63-6	TWA: 25 ppm
	1, 2, 4-Trimethylbenzene	95-63-6	TWA: 125 mg/m ³
	Cumene	98-82-8	8-Hour TWA-PEL: 50 ppm
	Xylene	1330-20-7	TWA: 435 mg/m ³
	Xylene	1330-20-7	PEL: 100 ppm
	Xylene	1330-20-7	STEL: 150 ppm
	Xylene	1330-20-7	STEL: 655 mg/m ³
	n-Butyl acetate	123-86-4	PEL: 150 ppm

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Country (Legal Basis)	Substance	Identifier	Permissible concentration
	n-Butyl acetate	123-86-4	PEL: 710 mg/m ³
	n-Butyl acetate	123-86-4	STEL: 200 ppm
	n-Butyl acetate	123-86-4	STEL: 950 mg/m ³
	Mesitylene	108-67-8	TWA: 25 ppm
	Mesitylene	108-67-8	TWA: 125 mg/m ³
	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	4098-71-9	TWA: 0.005 ppm
	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	4098-71-9	STEL: 0.02 ppm
	Methyl acetate	79-20-9	TWA: 200 ppm
	Methyl acetate	79-20-9	TWA: 610 mg/m ³
	Methyl acetate	79-20-9	STEL: 250 ppm
	Methyl acetate	79-20-9	STEL: 760 mg/m ³
	Cumene	98-82-8	TWA: 245 mg/m ³
United States	Solvent naphtha (petroleum), light arom.	64742-95-6	PEL: 100 ppm (OSHA Z-1 PEL: 100 ppm / 400 mg/m ³ .)
United States(California)	Hexamethylene diisocyanate	822-06-0	PEL: 0.034 mg/m ³ (0.005 ppm)
	Cumene	98-82-8	8-Hour TWA: 50 ppm
	Cumene	98-82-8	8-Hour TWA: 245 mg/m ³

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Effective ventilation in all processing areas.

Use local exhaust ventilation to maintain airborne concentrations below the TLV.

Personal protection equipment

Eye and face protection:

- Safety goggles
- Safety goggles or safety glasses with side shields
- Safety glasses

Skin and body protection:

- Impervious clothing, chemical resistant gloves
- Chemical resistant clothing and gloves
- Impervious clothing and chemical resistant gloves
- Chemical resistant clothing, Chemical resistant gloves

Respiratory protection:

- In case of insufficient ventilation, wear suitable respiratory protection
- In case of insufficient ventilation, wear suitable respiratory protection

General hygienic measures:

Handle in accordance with good industrial hygiene and safety measures. Wash hands and face after handling chemical products. Wash hands before eating, drinking and smoking. Wash hands at the end of the workday.

Handle in accordance with good industrial hygiene and safety measures. Wash hands and face after

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handling chemical products. Wash hands before eating, drinking and smoking. Wash hands at the end of the workday. Appropriate techniques should be applied to remove contaminated clothing and shoes. Wash contaminated clothing before reuse.

Handle in accordance with good industrial hygiene and safety measures.

Wash hands and face after handling chemical products.

Wash hands before eating, drinking and smoking.

Wash hands at the end of the workday.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid
Odor	Solvent
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Not determined or not available.
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	10.02 lbs/gal
Relative density	Not determined or not available.
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability:

Stable under normal storage and handling conditions.

Stable under recommended storage and handling conditions.

Possibility of hazardous reactions:

Under normal conditions of storage and use, hazardous reactions will not occur.

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No dangerous reaction known under conditions of normal use.

Conditions to avoid:

Incompatible materials.

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.

Do not store with strong oxidizing agents. -- No smoking.

Incompatible materials:

Strong oxidizing agents.

Strong oxidizing agents and strong acids.

Hazardous decomposition products:

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

Carbon oxides (COx).

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Route	Result
Hexamethylene diisocyanate	oral	LD50 Rat: 959 mg/m ³ (Manganese neodecanoate)
Hexamethylene diisocyanate, oligomers	inhalation	LC50 Rat: 18,500 mg/kg (1 Hr)
1, 2, 4-Trimethylbenzene	inhalation	LC50 Rat: 18,000 mg/m ³
	oral	LD50 Rat: 6000 mg/kg
Cumene	oral	LD50 Rat: 2910 mg/kg
	dermal	LD50 Rabbit: 3160 mg/kg
Xylene	dermal	LD50 Rabbit: 1700 mg/kg
	inhalation	LC50 Rat: 5000 ppmV (4 h)
	oral	LD50 Mouse: 5251 mg/kg
Mesitylene	oral	LD50 Rat: 6000 mg/kg
	inhalation	LC50 Rat: 10200 mg/m ³
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	inhalation	LC50 Rat : 40 mg/m ³
4-Chloro- α,α,α -trifluorotoluene	oral	LD50 Rat: 5546 mg/kg
	inhalation	LC50 Rat: > 32.03 mg/L (4 hrs)

Skin corrosion/irritation

Assessment:

Causes skin irritation.

Product data:

No data available.

Substance data:

Name	Result
Hexamethylene diisocyanate	Causes severe skin burns and eye damage.

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Name	Result
1, 2, 4-Trimethylbenzene	Causes skin irritation.
Xylene	Causes skin irritation.
Mesitylene	Causes skin irritation.
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	Causes skin irritation.
4-Chloro- α,α,α -trifluorotoluene	Causes skin irritation.

Serious eye damage/irritation

Assessment:

Causes serious eye irritation.

Product data:

No data available.

Substance data:

Name	Result
1, 2, 4-Trimethylbenzene	Causes serious eye irritation.
Mesitylene	Causes serious eye irritation.
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	Causes serious eye irritation.
Methyl acetate	Causes serious eye irritation.
4-Chloro- α,α,α -trifluorotoluene	Causes serious eye irritation.

Respiratory or skin sensitization

Assessment:

May cause an allergic skin reaction.

Product data:

No data available.

Substance data:

Name	Result
Hexamethylene diisocyanate	May cause an allergic skin reaction.
	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Hexamethylene diisocyanate, oligomers	May cause an allergic skin reaction.
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	May cause an allergic skin reaction.
	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	May cause an allergic skin reaction.

Carcinogenicity

Assessment:

Suspected of causing cancer.

Product data: No data available.

Substance data:

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Name	Species	Result
Solvent naphtha (petroleum), light arom.	Not applicable.	Component may cause cancer.

International Agency for Research on Cancer (IARC):

Name	Classification
Cumene	Group 2B
Xylene	Group 3

National Toxicology Program (NTP):

Name	Classification
Cumene	Reasonably anticipated to be human carcinogens

OSHA Carcinogens: Not applicable

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data:

Name	Result
Solvent naphtha (petroleum), light arom.	May cause genetic defects.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment:

May cause respiratory irritation.

May cause drowsiness or dizziness.

Product data:

No data available.

Substance data:

Name	Result
1, 2, 4-Trimethylbenzene	May cause respiratory irritation.
Cumene	May cause respiratory irritation to the upper respiratory tract via inhalation exposure.
n-Butyl acetate	May cause drowsiness or dizziness.
Mesitylene	May cause respiratory irritation.
Propylbenzene	May cause respiratory irritation.
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	May cause respiratory irritation.
Methyl acetate	May cause drowsiness or dizziness.
4-Chloro- α,α,α -trifluorotoluene	Component affects the respiratory system.

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Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data:

Name	Result
Cumene	May be fatal if swallowed and enters airways.
Mesitylene	Maybe fatal if swallowed and enters airways.
Propylbenzene	May be fatal if swallowed and enters airways.
1, 2, 4-Trimethylbenzene	May be fatal if swallowed and enters airways.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

Other information:

No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
4-Chloro- α,α,α -trifluorotoluene	EC50 Green Algae: ≥ 0.41 mg/L (72 hrs)
	LC50 Daphnia magna: 2 mg/L (48 hrs)
	LC50 Rainbow Trout: 3 mg/L (96 hrs)
1, 2, 4-Trimethylbenzene	LC50 Pimephales promelas: 7.72 mg/L (96 hours)
Cumene	LC50 Oncorhynchus mykiss: 4.8 mg/L (96 hours)
	EC50 Daphnia magna: 2.14 mg/L (48 hours)
Mesitylene	LC50 Carassius auratus: 12.52 mg/L (96 hours)

Chronic (long-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
1, 2, 4-Trimethylbenzene	NOEC Various: 0.396 mg/L (30 days)
Cumene	NOEC Pimephales promelas: 0.38 mg/L (28-32 days)
	NOEC Daphnia magna: 0.35 mg/L (21 days)
Mesitylene	NOEC Daphnia magna: 0.4 mg/L (21 days)

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Persistence and degradability

Product data: No data available.

Substance data:

Name	Result
Hexamethylene diisocyanate	Not readily biodegradable.
1, 2, 4-Trimethylbenzene	Readily biodegradable, but failing 10-day window.
Cumene	Readily biodegradable in water.
Xylene	Readily biodegradable in water.
n-Butyl acetate	Readily biodegradable.
Mesitylene	Readily biodegradable but failing 10-day window.
Methyl acetate	Readily biodegradable.
4-Chloro- α,α,α -trifluorotoluene	Not readily biodegradable. (28 d) 19.2%

Bioaccumulative potential

Product data: No data available.

Substance data:

Name	Result
Hexamethylene diisocyanate	This substance does not have a high bioaccumulation potential.
Cumene	Calculated BCF: 94.69 L/kg (low potential for bioconcentration is to be expected)
Xylene	BCF: >8.1 - <25.9
n-Butyl acetate	Has a low potential for bioaccumulation in aquatic organisms.
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	This substance has low potential to bioaccumulate.
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	This substance has low potential to bioaccumulate.
1, 2, 4-Trimethylbenzene	BCF: 243
Mesitylene	BCF: 342

Mobility in soil

Product data: No data available.

Substance data:

Name	Result
1, 2, 4-Trimethylbenzene	Slightly Mobile (log Koc: 3.04)
Cumene	Moderately Mobile (Calculated log Koc: 2.946)
Xylene	Moderately Mobile (Log Koc: 2.73)

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

Contaminated packages:

Not determined or not applicable.

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SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

822-06-0	Hexamethylene diisocyanate	Listed
28182-81-2	Hexamethylene diisocyanate, oligomers	Listed
95-63-6	1, 2, 4-Trimethylbenzene	Listed
98-82-8	Cumene	Listed
1330-20-7	Xylene	Listed
64742-95-6	Solvent naphtha (petroleum), light arom.	Listed
123-86-4	n-Butyl acetate	Listed
108-67-8	Mesitylene	Listed
103-65-1	Propylbenzene	Listed
4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	Listed
53880-05-0	3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	Listed
79-20-9	Methyl acetate	Listed

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98-56-6	4-Chloro- α,α,α -trifluorotoluene	Listed
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Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b):

98-56-6	4-Chloro- α,α,α -trifluorotoluene	Listed
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SARA Section 302 extremely hazardous substances:

4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	Listed
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SARA Section 313 toxic chemicals:

822-06-0	Hexamethylene diisocyanate	Listed
28182-81-2	Hexamethylene diisocyanate, oligomers	Not Listed
95-63-6	1, 2, 4-Trimethylbenzene	Listed
98-82-8	Cumene	Listed
1330-20-7	Xylene	Listed
64742-95-6	Solvent naphtha (petroleum), light arom.	Not Listed
123-86-4	n-Butyl acetate	Not Listed
108-67-8	Mesitylene	Not Listed
103-65-1	Propylbenzene	Not Listed
4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	Listed
53880-05-0	3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	Not Listed
79-20-9	Methyl acetate	Not Listed
98-56-6	4-Chloro- α,α,α -trifluorotoluene	Not Listed

CERCLA:

822-06-0	Hexamethylene diisocyanate	Listed	100 Lbs
98-82-8	Cumene	Listed	5000
1330-20-7	Xylene	Listed	100
123-86-4	n-Butyl acetate	Listed	5000

RCRA:

98-82-8	Cumene	Listed	U055
1330-20-7	Xylene	Listed	U239

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

822-06-0	Hexamethylene diisocyanate	Listed
28182-81-2	Hexamethylene diisocyanate, oligomers	Not Listed
95-63-6	1, 2, 4-Trimethylbenzene	Listed
98-82-8	Cumene	Listed

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1330-20-7	Xylene	Listed
64742-95-6	Solvent naphtha (petroleum), light arom.	Listed
123-86-4	n-Butyl acetate	Listed
108-67-8	Mesitylene	Listed
103-65-1	Propylbenzene	Listed
4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	Listed
53880-05-0	3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	Not Listed
79-20-9	Methyl acetate	Listed
98-56-6	4-Chloro- α,α,α -trifluorotoluene	Not Listed

New Jersey Right to Know:

822-06-0	Hexamethylene diisocyanate	Listed
28182-81-2	Hexamethylene diisocyanate, oligomers	Not Listed
95-63-6	1, 2, 4-Trimethylbenzene	Listed
98-82-8	Cumene	Listed
1330-20-7	Xylene	Listed
64742-95-6	Solvent naphtha (petroleum), light arom.	Listed
123-86-4	n-Butyl acetate	Listed
108-67-8	Mesitylene	Listed
103-65-1	Propylbenzene	Listed
4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	Listed
53880-05-0	3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	Not Listed
79-20-9	Methyl acetate	Listed
98-56-6	4-Chloro- α,α,α -trifluorotoluene	Listed

New York Right to Know:

822-06-0	Hexamethylene diisocyanate	Listed
28182-81-2	Hexamethylene diisocyanate, oligomers	Not Listed
95-63-6	1, 2, 4-Trimethylbenzene	Listed
98-82-8	Cumene	Listed
1330-20-7	Xylene	Listed
64742-95-6	Solvent naphtha (petroleum), light arom.	Not Listed
123-86-4	n-Butyl acetate	Listed
108-67-8	Mesitylene	Listed
103-65-1	Propylbenzene	Listed
4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone di-isocyanate	Listed
53880-05-0	3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	Not Listed

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79-20-9	Methyl acetate	Listed
98-56-6	4-Chloro- α,α,α -trifluorotoluene	Listed

Pennsylvania Right to Know:

822-06-0	Hexamethylene diisocyanate	Not Listed
28182-81-2	Hexamethylene diisocyanate, oligomers	Not Listed
95-63-6	1, 2, 4-Trimethylbenzene	Listed
98-82-8	Cumene	Listed
1330-20-7	Xylene	Listed
64742-95-6	Solvent naphtha (petroleum), light arom.	Listed
123-86-4	n-Butyl acetate	Listed
108-67-8	Mesitylene	Listed
103-65-1	Propylbenzene	Listed
4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate isophorone diisocyanate	Listed
53880-05-0	3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers	Not Listed
79-20-9	Methyl acetate	Listed
98-56-6	4-Chloro- α,α,α -trifluorotoluene	Not Listed

California Proposition 65:

⚠ WARNING: This product can expose you to chemicals including Cumene and 4-Chloro- α,α,α -trifluorotoluene which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 0-0-0

HMIS: 0-0-0

Initial preparation date: 03.03.2020

End of Safety Data Sheet