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Hazard(s) identification

GHS Ratings:

Skin corrosive	3	Reversible adverse effects in dermal tissue, Draize score: >= 1.5 < 2.3
Eye corrosive	2	Eye irritant: Subcategory 2A, Reversible in 21 days
Carcinogen	2A	Limited evidence of human or animal carcinogenicity Presumed,
Reproductive toxin	1B	Based on experimental animals

GHS Hazards

H316 Causes mild skin irritation
H319 Causes serious eye irritation
H351 Suspected of causing cancer
H360 May damage fertility or the unborn child

GHS Precautions

P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P264 Wash … thoroughly after handling
P280 Wear protective gloves/protective clothing/eye protection/face protection
P281 Use personal protective equipment as required
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 IF exposed or concerned: Get medical attention/advice
P332+P313 If skin irritation occurs: Get medical advice/attention P337+P313 If eye irritation persists, get medical advice/attention P405 Store locked up
P501 Dispose of in accordance with all applicable local, state and federal regulations.

Signal Word: Danger

Composition/information on ingredients

Chemical Name	CAS number	Weight Concentration %
Modified Copolymer	N/A	40.00% - 50.00%
Water softened	7732-18-5	30.00% - 40.00%
2-methoxy-1-methylethyl acetate		10.00% - 20.00%
Styrene		1.00% - 5.00%
Polyoxyethylene stearyl ether		1.00% - 5.00%

First-aid measures

If inhaled: In case of irritation of the respiratory tract seek medical advice.
In case of eye contact: Hold the eyes open and rinse with preferably lukewarm water for a sufficiently long period of time (at least 10 minutes). Contact an ophthalmologist.
In case of skin contact: Wash off immediately with soap and plenty of water . Consult a doctor in the event of a skin reaction.
If swallowed: DO NOT induce the patient to vomit, medical advice is required .

Fire-fighting measures

Flash Point: N/A
LEL: 1.00 UEL: 13.00

Suitable extinguishing media: Carbon dioxide (CO2), Foam, extinguishing powder, in cases of larger fires, water spray should be used.
Unsuitable extinguishing media: High volume water jet.

Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes.
5

Firemen must wear self-contained breathing apparatus.

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Put on protective equipment (see section 8). Ensure adequate ventilation/exhaust extraction. Keep unauthorized persons away.

6.2 Environment related measures: Do not allow to escape into waterways, wastewater or soil.

6.3 Methods and material for containment and cleaning up: Take up with absorbent for chemicals or, if necessary with dry sand and store in closed containers.

6.4 Reference to other sections: For further disposal measures see section 13

Handling and storage

When handling observe the usual precautionary measures for chemicals. Avoid contact with the skin and the eyes.

Keep away from foodstuffs, drinks and tobacco. Wash hands before breaks and at the end of workday . Keep working clothes separately. Change contaminated or soaked clothing.
Keep container tightly closed in a dry and well-ventilated place. Further information on the storage conditions which must be observed to preserve quality can be found in our product information sheet. No information available.

Exposure Controls / Personal Protection

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Modified Copolymer N/A	Not Established	Not Established	Not Established
Water softened 7732-18-5	No component of this product at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.	No component of this product at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.	Not Established
2-methoxy-1-methylethyl acetate	Not Established	Not Established	Not Established
Styrene	Not Established	(ACGIH 2010) 8 Hour TWA (mg/m3)	Not Established
Polyoxyethylene stearyl ether	Not Established	Not Established	Not Established

Physical and Chemical Properties

This mixture typically exhibits the following properties under normal circumstance:

Appearance: Liquid

Vapor Pressure: 25 hPa at 20 °C

Vapor Density: Not determined

Density: 1,06 g/cm³ at 20 °C

Boiling point: 97 °C at 1.013 hPa

Evaporation rate: Not determined

Explosive Limits:

Autoignition temperature: not applicable

Viscosity:

Odor: slight inherent odour

Odor threshold: Not determined

pH: 7 - 8

Solubility: Not determined

Flash point: No flash point up to initial boiling point.

Flammability: not applicable

Partition coefficient (n-octanol/water):

Decomposition temperature: not applicable

Grams VOC less water:

Stability and Reactivity

No thermal decomposition when stored and handled correctly.
STABLE
On drying of the coating / hardening release of neutralizing agent Hazardous polymerization will not occur.

Toxicological Information

Mixture Toxicity
Inhalation Toxicity LC50: 1,109mg/L
Component Toxicity

Primary routes of entry: Inhalation, Skin contact.

CAS Number	Description	% Weight
100-42-5	Styrene	1% - 5%

Carcinogen Rating Styrene:

Ecological Information

Ecotoxicological studies of the product are not available.

Do not allow to escape into waterways, wastewater or soil

Component Ecotoxicity

Water softened Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

2-methoxy-1-methylethyl acetate Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 161 mg/l
Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia): 408 mg/l
Exposure time: 48 h
Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): > 1,000 mg/l Exposure time: 96 h Test Type: Growth inhibition

Styrene Do not empty into drains. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment . The product contains following substances which are hazardous for the environment. Contains a substance which is:. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Disposal Considerations

Dispose in accordance with applicable international, national and local laws, ordinances and statutes.

For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used .

Waste treatment methods: After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations.

None disposal into waste water.

Hazards Identification

GHS Ratings:

Inhalation Toxicity 2 Gases>100+<=500ppm, Vapors>0.5+<=2mg/l, Dusts&mists>0.05+<=0.5mg/l
Respiratory sensitizer 1 Respiratory sensitizer Skin sensitizer 1 Skin sensitizer

GHS Hazards

H317 May cause an allergic skin reaction H330
Fatal if inhaled
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

GHS Precautions

P261 Avoid breathing dust/fume/gas/mist/vapours/spray
P272 Contaminated work clothing should not be allowed out of the workplace
P280 Wear protective gloves/protective clothing/eye protection/face protection
P285 In case of inadequate ventilation wear respiratory protection
P321 Specific treatment (see … on this label)
P363 Wash contaminated clothing before reuse
P302+P352 IF ON SKIN: Wash with soap and water
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention
P342+P311 Call a POISON CENTER or doctor/physician
P501 Dispose of in accordance with all applicable local, state and federal regulations.

Signal Word: Danger

Composition / Information on Ingredients

Chemical Name	CAS number	Weight Concentration %
HOMOPOLYMER OF HEXAMETHYLENE DIISOCYANATE	28182-81-2	80.00% - 90.00%
HOMOPOLYMER OF ISOPHORONE DIISOCYANATE	53880-05-0	11.00%
Polyoxyethylene Tridecyl Ether Phosphate	9046-01-9	1.00% - 5.00%
Dimethylcyclohexylamine	98-94-2	1.00% - 5.00%

First Aid Measures

After inhalation: Move the person away from the contaminated area. Fresh air and rest. Seek immediate
medical advice. Show this sheet to the doctor.
After eye contact: Immediately rinse with plenty of running water for a prolonged period, (at least 15 minutes) while keeping the eyes wide open. If irritation persists, consult a doctor. Show this sheet to the doctor.
After skin contact: Wash with soap and water. Wash immediately and thoroughly for a prolonged period (at least 15 minutes). In case of inflammation (redness, irritation, ...) obtain medical attention. Place contaminated clothing in a sealed bag for disposal.
After swallowing: NEVER attempt to induce vomiting. Rinse mouth out with water. Do not give anything to drink. If necessary seek medical advice. Show this sheet to the doctor.

Fire-fighting measures

Flash Point: N/A
LEL: UEL:

Suitable extinguishing agents: Foam Powders Carbon dioxide Dry chemical ·
For safety reasons unsuitable extinguishing agents: Water

Combustible. During combustion toxic vapors are released. Under fire conditions, corrosive fumes are emitted: oxides of nitrogen oxides of carbon. Reacts with water releasing large amounts of carbon dioxide which may cause pressure build-up in confined spaces.

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing .

Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

7 Avoid contact with the eyes and skin.
8 Do not breathe gas.
9 Do NOT approach from DOWNWIND.
10 Do NOT attempt to take action WITHOUT suitable protective equipment.
11 Self-contained breathing apparatus.
12 Wear fully protective suit.
13 Mark out the contaminated area with signs and prevent access to unauthorized personnel.
14 Keep people at a distance and stay upwind. ·

Environmental precautions:

15 Contain the spilled material by binding.
16 Do not allow to enter sewers/ surface or ground water. ·

Methods and material for containment and cleaning up:

17 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
18 Pump up the product into a spare container suitably labeled.
19 Wash contaminated area with large amounts of water.
20 Recover the cleaning water for subsequent disposal.
21 Dispose contaminated material as waste according to item 13.

22 Do not flush to drain. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies. ·

Reference to other sections

23 See Section 7 for information on safe handling.
24 See Section 8 for iinformation on personal protection equipment.
25 See Section 13 for disposal information.

Handling and Storage

Precautions for safe handling:

- Ensure good ventilation/aspiration at the workplace.
- Avoid contact with water or humidity.
- Avoid any direct contact with the product.
- Any measure to eliminate exposure should be considered.
- Very high level of containment required, except for short term exposures e.g. taking samples (industrial use condition).
- Comply with instructions for use (refer to technical sheet).

Storage:

- The floor of the depot should be impermeable and designed to form a water-tight basin.
- Store in cool, dry conditions in well sealed receptacles.
- Store receptacle in a well ventilated area.
- Store away from incompatible materials.

Requirements to be met by storerooms and receptacles:

- Store only in unopened original receptacles.
- Metallic drums.
- Storage tank with a dry nitrogen blanket.
- Packaging materials recommended : Aluminium. Steel.
- Unsuitable material for receptacle: Copper.
- Unsuitable material for receptacle: Tin
- Suitable material for receptacle and pipe: epoxy-coated steel.
- Unsuitable material for receptacle: Polystyrene.

Exposure Controls / Personal Protection

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
HOMOPOLYMER OF HEXAMETHYLENE DIISOCYANATE 28182-81-2	Not Established	Not Established	Not Established
HOMOPOLYMER OF ISOPHORONE DIISOCYANATE 53880-05-0	Not Established	Not Established	Not Established
Polyoxyethylene Tridecyl Ether Phosphate 9046-01-9	Not Established	Not Established	Not Established
Dimethylcyclohexylamine 98-94-2	Not Established	Not Established	Not Established

Protective gloves:

26 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation . Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

27 Suitable materials also with prolonged, direct contact (protective index 6, corresponding > 480 minutes of permeation time): Butyl rubber, BR Protective gloves must be chosen according to the function of the work station: other chemicals which may be handled, physical protection necessary (resistance to cutting, puncture, heat), dexterity required.

Eye protection:

28 Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

29 Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area.

Body protection: Protective work clothing

Physical and Chemical Properties

This mixture typically exhibits the following properties under normal circumstance:

Appearance Liquid

Physical State Liquid

VOC 83.9 %

Boiling Point 160 °C, 320 °F

Specific Gravity (SG) 1.087

Lbs VOC/Gallon Less Water 0.00

Stability and Reactivity

Chemical stability: Stable at ambient temperature

STABLE

Possibility of hazardous reactions Reacts with:

- water and aqueous solutions.
- alcohols.
- amines.
- bases.
- protic solvents. with a great release of CO2, and hence a risk of a pressure build-up in confined areas,and forms an insoluble solid precipitate.
- Reacts with strong acids
- Reacts with strong oxidizing agents

Hazardous decomposition products: On thermal decomposition (pyrolysis) releases: Toxic gases . Nitrogen oxides Carbon oxides (CO + CO2)

- Hazardous polymerization will not occur.

Toxicological Information

Mixture Toxicity

Oral Toxicity LD50: 2,487mg/kg Inhalation Toxicity LC50: 1mg/L

Component Toxicity

28182-81-2 HOMOPOLYMER OF HEXAMETHYLENE DIISOCYANATE

Oral LD50: 2,500 mg/kg (Rat (female)) Inhalation LC50: 1 mg/L (Rat (male))

53880-05-0 HOMOPOLYMER OF ISOPHORONE DIISOCYANATE

Inhalation LC50: 5 mg/L (Rat)

9046-01-9 Polyoxyethylene Tridecyl Ether Phosphate

Oral LD50: 1,530 mg/kg (Rat) Dermal LD50: 2,740 mg/kg (Rabbit) Inhalation LC50: 850 mg/m3 (Rat)

98-94-2 Dimethylcyclohexylamine

Oral LD50: 289 mg/kg (Rat) Dermal LD50: 380 mg/kg (Rat)

Primary routes of entry: Inhalation, Skin contact

CAS Number Description % Weight None

Carcinogen Rating No Data Available

Ecological Information

The product does not have any known adverse effects on the aquatic organisms tested .

Component Ecotoxicity

HOMOPOLYMER OF ISOPHORONE DIISOCYANATE

Polyoxyethylene Tridecyl Ether Phosphate

LC50 Cyprinus carpio: > 1.5 mg/l / 96h Method: OECD Test Guidline 203
In the range of water solubility not toxic under test conditions.

ErC50 Growth inhibition scendedesmus subspicatus: > 3.1 mg/l / 72h Test substance: Isophoronediisocyanate, homopolymer Method: OECD 201
The result refers to a 70% solution.

EC50 Acitivated sludge: > 1000 mg/l / 3h Method: OECD 209
Nominal concentration

EC50 Daphnia magna (water flea): > 3.3 mg/l / 48h Test substance: Isophoronediisocyanate, homopolymer Method: OECD 202
The result refers to a 70% solution. No data available.

Dimethylcyclohexylamine The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Disposal Considerations

Waste treatment methods Recommendation:

30 Discharging waste into rivers and drains is forbidden.
31 Incinerate at a licensed installation.
32 Disposal must be made according to federal, state and local regulations.

Waste disposal key: EPA Hazardous Waste - NO
Uncleaned packaging: Contaminated packaging materials must be disposed of in the same manner as the product.
Recommendation:

33 Allow it to drain thoroughly.
34 Thoroughly emptied and clean packaging may be recycled.
35 Disposal must be made according to official regulations.