BINDER HD

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name	Mixture
Trade Name	BINDER HD
CAS No.	Mixture

Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	Intermediate for polyurethanes
Uses Advised Against	None

Details of the supplier of the safety data sheet

Company Identification	Everchem Specialty Chemicals 1400 N Providence Road, Suite 302 Media, PA 19063 United States of America
Telephone	(484) 234-5030; M-F 8:00 AM-5:30 PM EST

Emergency telephone number

Emergency Phone No.	**Transportation Emergency:** CHEMTREC® 24 hr. 1-800-424-9300 / 1 (703) 527-3887 (Collect calls accepted)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200) — Skin Irrit. 2; Eye Irrit. 2; Resp. Sens. 1; Skin Sens. 1; Carc. 1B; STOT RE 1; Repr. 2

Label elements

Hazard Symbol(s)

Signal Word(s): **DANGER**

Hazard Statement(s):

Causes skin irritation.

Causes serious eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May cause cancer.

Causes damage to organs through prolonged or repeated exposure: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus, respiratory system.

Suspected of damaging fertility or the unborn child.

Precautionary Statement(s):

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Wash hands and exposed skin after use.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Do not eat, drink or smoke when using this product.

Contaminated work clothing should not be allowed out of the workplace.

Other hazards: Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Additional Information: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Composition/information on ingredients	%W/W	CAS No.	Hazard classification
Polyurethane prepolymer	60 - 80	59675-67-1	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 Carc. 2; H351 STOT RE 2; H373
Polymethylene polyphenyl isocyanate	6 - 12	9016-87-9	
4,4'-Diphenylmethane diisocyanate	4 - 10	101-68-8	
Extracts, heavy paraffinic distillate solvent ^	25 - 38	64742-04-7	Asp. Tox. 1; H304 Repr. 2; H361 Carc. 1B; H350 STOT RE 1; H372 Aquatic Acute 3; H402 Aquatic Chronic 3; H412

Additional Information - Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.**:**

^Contains: 4- to 6-member condensed ring polycyclic aromatic hydrocarbons (PAHs) inherent in the petroleum distillate. These PAHs may include Benzo(a)pyrene, Benzo(b)fluoranthene, Benz(a)anthracene, and others.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Inhalation	Move person to fresh air. Treat symptomatically. If breathing is labored, administer oxygen. Seek medical treatment when anyone has symptoms apparently due to inhalation.
Skin Contact	Wash affected skin with plenty of water. If irritation (redness, rash, blistering) develops, get medical attention. Wash contaminated clothing before reuse.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Call a physician (or poison control centre immediately). Do not give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	May produce an allergic reaction in persons already sensitized.
Indication of any immediate medical attention and special treatment needed	None

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

-Suitable Extinguishing Media	Extinguish with carbon dioxide, dry chemical, foam or water spray.
-Unsuitable Extinguishing Media	None anticipated.
Special hazards arising from the substance or mixture	Combustion or thermal decomposition will evolve toxic and irritant vapors.
Advice for fire-fighters	Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Put on protective equipment before entering danger area. Ensure suitable personal protection (including respiratory protection) during removal of spillages. Skin contact must be avoided. Avoid breathing dust/fume/gas/mist/vapors/spray.

Environmental precautions
Contain spillages with sand, earth or any suitable adsorbent material. Do not allow to enter drains, sewers or watercourses.

Methods and material for containment and cleaning up
Transfer to a container for disposal or recovery. Wash the spillage area with water. If possible prevent water running into sewers.

Reference to other sections
None

Additional Information
None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands and exposed skin after use. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace.

Conditions for safe storage, including any incompatibilities

-Storage temperature
Keep containers properly sealed when not in use. Do not allow material to freeze. Protect from moisture and damage. If product is contaminated with moisture, do not reseal as hazardous build-up of pressure could result. Store under inert gas (e.g nitrogen) to prevent ingress of moisture or air into the container. If a container is part emptied flush thoroughly with inert gas prior to resealing.

-Incompatible materials
Alcohols, amines, acids, and basis. Reaction with water is very slow under 122 °F (50 °C) but is accelerated at higher temperatures.

Specific end use(s)
Intermediate for polyurethanes

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational Exposure Limits

SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)		STEL (ppm)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
4,4'-Diphenylmethane diisocyanate	101-68-8	------	0.005 ppm	0.02 ppm (Ceiling)	------	------
4- to 6-member condensed ring polycyclic aromatic hydrocarbons (PAHs) inherent in: Extracts, heavy paraffinic distillate solvent (CAS No. 64742-04-7) ^	------	Suspected human carcinogens. The OSHA PEL of 0.2 mg/m3 as 8-hour TWA for coal tar pitch volatiles should be applied as a minumum. Exposure by all routes should be carefully controlled to levels as low as possible.				

- LTEL: Long Term Exposure Limit; STEL: Short Term Exposure Limit. ^ PAHs may include Benzo(a)pyrene, Benzo(b)fluoranthene, Benz(a)anthracene, and others.

Exposure controls

Appropriate engineering controls
Provide adequate ventilation, including appropriate local extraction, to ensure that the occupational exposure limit is not exceeded.

Personal protection equipment

Eye/face protection 	Safety glasses with side-shields.
Skin protection (Hand protection/ Other)  	Gloves (Neoprene or Butyl rubber). Check with protective equipment manufacturer's data.
Respiratory protection 	In case of insufficient ventilation, wear suitable respiratory equipment. Check with protective equipment manufacturer's data.
Thermal hazards	Not normally required.
Environmental Exposure Controls	Do not allow to enter drains, sewers or watercourses.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Color.	Brown
Odor	Slight
Odor Threshold (ppm)	Not available.
pH (Value)	Not available.
Melting Point (°C) / Freezing Point (°C)	Not available.
Boiling point/boiling range (°C):	Not available.
Flash Point (°C)	219 (427 °F)
Evaporation Rate	Not available.
Flammability (solid, gas)	Not applicable.
Explosive Limit Ranges	Not applicable.
Vapour Pressure (mm Hg)	4×10^{-6} at 20 °C
Vapour Density (Air=1)	~ 8.5
Density (g/ml)	1.1 - 1.2
Solubility (Water)	Reacts with water
Solubility (Other)	Soluble in most organic solvents.
Partition Coefficient (n-Octanol/water)	Not available.
Auto Ignition Point (°C)	240 (464 °F)
Decomposition Temperature (°C)	341 (646 °F)
Kinematic Viscosity (cSt) @ 40°C	Not available.
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

Other information Not available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Polymerization may occur at elevated temperatures in the presence of alkalis, tertiary amines, and metal compounds.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None anticipated.
Conditions to avoid	Incompatible materials. Temperature extremes.

Incompatible materials	Alcohols, amines, acids, and basis. Reaction with water is very slow under 122 °F (50 °C) but is accelerated at higher temperatures.
Hazardous decomposition product(s)	Low molecular weight organic compounds; oxides of carbon, nitrogen, and/or sulfur; smoke of unknown toxicity.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation**,** Skin Contact**,** Eye Contact

Information on toxicological effects:

Acute toxicity	Oral: LD50 > 5000 mg/kg (rat) - By analogy with similar materials
Irritation / Corrosivity	Causes skin irritation. Causes serious eye irritation.
Sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Repeated dose toxicity	Causes damage to organs through prolonged or repeated exposure: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus, respiratory system.
Mutagenicity	There is no evidence of mutagenic potential.
Carcinogenicity	May cause cancer.

4,4'-Diphenylmethane diisocyanate (CAS No. 101-68-8):

NTP	IARC	ACGIH	OSHA
No.	Group 3 - Not classifiable as to its carcinogenicity in humans	No.	No.

4- to 6-member condensed ring polycyclic aromatic hydrocarbons (PAHs):

NTP	IARC	ACGIH	OSHA
Reasonably anticipated to be a human carcinogen	Group 1 Human Carcinogen	A2 Suspected Human Carcinogens	Yes.

Toxicity for reproduction	Suspected of damaging fertility or the unborn child.
Other information	None known.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Extracts, heavy paraffinic distillate solvent (CAS No. 64742-04-7):

Acute toxicity	LL50 (96 hour): >1000 mg/l (Fish) EL50 (48 hour) 35.9 mg/l (Aquatic invertebrates) EL50 (72 hour): 18.8 mg/l (Algae)
Long Term Toxicity	Not available.

Persistence and degradability	Not readily biodegradable.
Bioaccumulative potential	The substance has low potential for bioaccumulation.
Mobility in soil	The substance has low mobility in soil.
Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods	Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.
Additional Information	None known.

SECTION 14: TRANSPORT INFORMATION

	Land transport (U.S. DOT)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number			
Proper Shipping Name			
Transport hazard class(es)			
Packing group	**Not classified as dangerous for transport.**		
Environmental hazards			
Special precautions for user			

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status**:** All components listed or exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
4,4'-Diphenylmethane diisocyanate	101-68-8	4 - 10	5000
Benzo(b)fluoranthene	205-99-2	< 1	1
Benzo(a)pyrene	50-32-8	< 1	1
Benz(a)anthracene	56-55-3	< 1	10
Naphthalene	91-20-3	< 2	100

SARA 311/312 - Hazard Categories:

☐ Fire ☐ Sudden Release ☐ Reactivity ☒ Immediate (acute) ☒ Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
4,4'-Diphenylmethane diisocyanate	101-68-8	4 - 10
Polymeric diphenylmethane diisocyanate	9016-87-9	6 - 12
Polycyclic aromatic hydrocarbons	various	< 1%

SARA 302 - Extremely Hazardous Substances(40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)	TPQ (Pounds)
None	-----	-----	-----	-----

Proposition 65 (California): "WARNING: This product contains substances known to the state of california to cause cancer: 4- to 6-member condensed ring polycyclic aromatic hydrocarbons, including Benzo(a)pyrene, Benzo(b)fluoranthene, Benz(a)anthracene, and others.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

Date of preparation: May 26, 2015

Hazard Statement(s) Listed in: SECTION 3

None

Training advice: None.

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