

Section 1. Identification

GHS Product Identifier	: Delcrete/Delpatch DSB 1494 B
CAS No.	: Proprietary
Chemical Family	: Polyol/Diamine blend.
Product Use	: For industrial or professional use only. This material is used as a curing agent for the production of cast polyurethane.
Supplier	: The D.S. Brown Company 300 East Cherry Street North Baltimore, Ohio 45872 419-257-3561
In Case of Emergency	: Chemtrec 1-800-262-8200 International 01-703-741-5500

Section 2. Hazards Identification

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS Classification in Accordance with 29CFR 1910 (OSHA HCS)	: Health, Carcinogenicity, 1 B. Environmental, Hazards to the aquatic environment - Acute, 1. Environmental, Hazards to the aquatic environment - Chronic, 1. Health, Specific target organ toxicity - Repeated exposure, 2. Health, Skin corrosion/irritation, 2. Health, Serious Eye Damage/Eye Irritation, 2 A. Health, Acute toxicity, 4 Dermal. Health, Acute toxicity, 4 Oral. Health, Germ cell mutagenicity, 2.
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GHS Label Elements, Including Precautionary Statements

GHS Signal Word : **DANGER**

GHS Hazard Pictograms : 

GHS Hazard Statements :

- H350 May cause cancer.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H312 Harmful in contact with skin.
- H302 Harmful if swallowed.
- H341 Suspected of causing genetic defects.

Section 2. Hazards Identification *cont'd.*

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE *cont'd.*

GHS Label Elements, Including Precautionary Statements

- GHS Precautionary Statements** :
- P201 Obtain special instructions before use.
 - P202 Do not handle until all safety precautions have been read and understood.
 - P260 Do not breathe vapors.
 - P264 Wash hand thoroughly after handling.
 - P270 Do not eat, drink or smoke when using this product.
 - P273 Avoid release to the environment.
 - P280 Wear protective gloves, clothing and eye protection.
 - P301+312 **If swallowed:** Call a POISON CENTER if you feel unwell.
 - P302+352 **If on skin:** Wash with plenty of soap and water.
 - P305+351+338 **If in eyes:** Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
 - P308+313 **If exposed or concerned:** Get medical advice/attention.
 - P312 Call a POISON CENTER or doctor/physician if you feel unwell.
 - P330 Rinse mouth.
 - P332+313 If skin irritation occurs: Get medical advice/attention.
 - P337 If eye irritation persists: Get medical attention.
 - P362 Take off contaminated clothing and wash before reuse.
 - P391 Collect spillage.
 - P405 Store locked up.
 - P501 Dispose of container in accordance with local or state regulation.

- Hazards Not Otherwise Classified (HNOC) or Not Covered** :
- This material contains less than 1% organo mercury catalyst which is classified as STOT-RE Category 2 for Systemic effects (oral/dermal).

Section 3. Composition/Information on Ingredients

Chemical Name	Common Name and Synonyms	CAS No.	%
4,4'-Methylene bis(2-chloroaniline) (MOCA)		101-14-4	30-40
Trade Secret		*****	0.1-1

Section 4. First Aid Measures

- Inhalation** :
- Move to an area free from the risk of further exposure. If not breathing, or breathing is difficult, obtain medical attention.
- Skin Contact** :
- Flush skin with plenty of water for at least 5 minutes while removing contaminated clothing and shoes. Wash thoroughly with soap and water. Get medical attention if irritation or rash develops on affected area. Wash clothing before reuse.
- Eye Contact** :
- Rinse with water immediately for 5 minutes. If irritation occurs, seek medical attention.
- Ingestion** :
- Do not induce vomiting. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Section 5. Fire-Fighting Measures

EXTINGUISHING MEDIA

- Suitable** : Carbon dioxide, dry chemical, or foam.
- Inappropriate Media** : Water spray or water discharge.
- Special Hazards Arising from the Substance or Mixture** : Toxic and/or irritating fumes can be produced during burning of this material. Decomposition products may be hazardous (see Section 10 for details on decomposition products).
- Advice for Firefighters** : Firefighters should wear self-contained breathing apparatus and full protective clothing. Downwind personnel should be evacuated. Do not reseal contaminated containers as pressure buildup may rupture them.

Section 6. Accidental Release Measures

- Personal Precautions, Protective Equipment and Emergency Procedures** : Evacuate personnel. Wear suitable PPE as described in Section 8.
- Environmental Precautions** : Prevent migration into groundwater, sewers, or streams. Land spills may require excavation of contaminated soil. Material should not be released into the environment.
- Methods for Containment and Cleaning Up** : Recover the spilled liquid with an inactive absorbent (e.g. dry sand) and put into chemical waste container. Prevent liquid from entering sewers, watercourses, etc.

Section 7. Handling and Storage

HANDLING PRECAUTIONS

- Precautions for Safe Handling** : Use in a well ventilated area, using good industrial hygiene practices. Avoid contact with eyes, skin, and clothing, and wear proper PPE (see Section 8).

STORAGE REQUIREMENTS

- Conditions for Safe Storage, Including Any Incompatibilities** : Store material at ambient temperature and pressure. Keep away from sources of direct heat and moisture. Keep container tightly closed when not in use. Containers can retain product residue after being emptied. Always obey hazards warnings and handle empty containers as though they were full.
- Material is stable under normal conditions.

Section 8. Exposure Controls/Personal Protection

Engineering Controls : Provide local exhaust ventilation to keep airborne concentrations below the recommended occupational exposure limits.

Personal Protective Equipment : **HMIS PP, C | Safety Glasses, Gloves, Apron**
4,4'-Methylene bis(2-chloroaniline) (MOCA) (101-14-4) [100%]

Personal protective equipment

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a fu-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatril (KCL 740 / Aldrich Z677272, Size M) Splash contact data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

4,4'-Methylene bis(2-chloroaniline) (MOCA) (101-14-4) [100%]

Components with workplace control parameters

TWA 0.01 ppm USA. ACGIH Threshold Limit Values (TLV)

Methemoglobinemia Bladder cancer substances for which there is a Biological Exposure Index or Indices (see BEI section) Suspected human carcinogen Danger of cutaneous absorption

TWA 0.02 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants -
0.22 mg/m3 1910.1000 Skin notation

TWA 0.003 mg/m3 USA. NIOSH Recommended Exposure Limits
Potential Occupational Carcinogen See Appendix A Potential for dermal absorption

Section 9. Physical and Chemical Properties

Appearance	: Black
Physical State	: Liquid
Odor	: No data available.
Odor Threshold	: N/A
Particle Size	: N/A
Spec Gravity/Density	: 1.08 (25°C/77°F)
Viscosity:	: 2200cP (25°C/77°F)
Boiling Point	: N/A
Partition Coefficient	: No data available.
Vapor Pressure	: No data available.
pH	: No data available.
Evaporation Rate	: N/A
Decomp Temp	: No data available.
Solubility	: No data available.
Freezing/Melting Pt.	: N/A
Flash Point	: >225°C TCC
Vapor Density	: No data available.
Auto-Ignition Temp	: No data available.
UFL/LFL	: No data available.

Section 10. Stability and Reactivity

Stability	: Reacts with mineral acid to form a salt.
Conditions to Avoid	: Exposure to temperatures above 200°C may liberate 2-Chloroaniline. Avoid contact with incompatible materials.
Materials to Avoid	: Oxidizing agents, reducing agents and strong bases.
Hazardous Decomposition	: May liberate hydrogen chloride, phosgene, carbon oxides, and oxides of nitrogen.
Hazardous Polymerization	: Hazardous Polymerization will not occur.

Section 11. Toxicological Information

INFORMATION ON TOXICOLOGICAL EFFECTS

Data for : 4,4'-Methylene bis(2-chloroaniline) (MOCA) (101-14-4)
Information on toxicological effects

Acute Toxicity

Oral : D50 LD50 Oral - rat - 1,140 mg/kg
Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):
Olfaction: Other changes.
Behavioral: Ataxia. Cyanosis.

Inhalation : LC50 no data available.

Dermal : LD50 LD50 Dermal - rabbit - > 5,000 mg/kg

OTHER INFORMATION ON ACUTE TOXICITY

Skin Corrosion/Irritation : No data available.

**Serious Eye Damage/
Eye Irritation** : Mild irritant.

**Respiratory or Skin
Sensitization** : No data available.

Germ Cell Mutagenicity : Laboratory experiments have shown mutagenic effects.

Carcinogenicity : This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.
Possible human carcinogen.

IARC: : 1 - Group 1: Carcinogenic to humans (4,4-Methylene bis(2-chloroaniline))

NTP : Reasonably anticipated to be a human carcinogen (4,4-Methylene bis (2-chloroaniline))

OSHA : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity : No data available.

Teratogenicity : No data available.

Specific Target Organ Toxicity : Hematologic effects.
- Single Exposure (Globally Harmonized System)

Specific Target Organ Toxicity : May cause damage to hematologic, respiratory or liver through prolonged or repeated exposure.
- Repeated Exposure (Globally Harmonized System)

Aspiration Hazard : No data available.

Section 11. Toxicological Information *cont'd.***POTENTIAL HEALTH EFFECTS:**

Inhalation	: May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	: Harmful if swallowed.
Skin	: Harmful if absorbed through skin. May cause skin irritation.
Eyes	: May cause eye irritation.
Signs and Symptoms of Exposure	: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Synergistic Effects	: No data available.

Section 12. Ecological Information

Toxicity	: No data available on product.
Data for	: 4,4'-Methylene bis(2-chloroaniline) (MOCA) (101-14-4) Endpoint/Species/Duration/Result LC50/Fish/96 hours/0.606mg/L EC50/Daphnia/48 hours/0.92mg/L ErC50/Algae/96 hours/1.89mg/L
Persistence and Degradability	: Product does not rapidly biodegrade.
Bioaccumulative Potential	: No data available on product.
Mobility in Soil	: No data available on product.

Section 13. Disposal Considerations

Waste Treatments Methods	: Follow all applicable local, state, and federal disposal regulations.
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Section 14. Transport Information

14.1 UN Number	: 3082
14.2 Proper Shipping Name	: RQ, Environmentally Hazardous Substance, Liquid, N.O.S. (4,4'-Methylene bis(2-chloroaniline)).
14.3 Hazard Class	: 9
14.4 Packing Group	: PG III.
14.5 Environmental Hazards	: Category 1 (Acute Toxicity).

Section 15. Regulatory Information

COMPONENT (CAS#) [%] - CODES

RQ(10LBS), 4,4'-Methylene bis(2-chloroaniline) (MOCA) (101-14-4) [30-40%] CERCLA, HAP, MASS, NJHS, NRC, OSHAWAC, PA, PROP65, SARA313, TOXICRCRA, TSCA, TXAIR, TXHWL

REGULATORY CODE DESCRIPTIONS

RQ = Reportable Quantity

CERCLA = Superfund Clean Up Substance

HAP= Hazardous Air Pollutants

MASS = MA Massachusetts Hazardous Substances

NJHS = NJ Right-to-Know Hazardous Substances

OSHAWAC = OSHA Workplace Air Contaminants

PA = PA Right-to-Know List of Hazardous Substances

PROP65 = CA Prop 65

SARA313 = SARA 313 Title III Toxic Chemicals

TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)

TXCA = Toxic Substances Control Act

TXAIR = TX Air Contaminants with Health Effects Screening Level

TXHWL = TX Hazardous Waste List

CHEMICAL INVENTORY STATUS

Country / Inventory / Status

United States / TSCA / On the inventory.

Canada / DSL / On the inventory.

Section 16. Other Information

HMIS III	: Health = 1 (Chronic) Fire = 1 Physical Hazard = 0
HMIS PPE	: C-Safety Glasses, Gloves, Apron
Abbreviation Key	: PEL - permissible exposure limit TWA - time weighted average TLV - threshold limit value STEL - short term exposure limit IDLH - immediately dangerous to life and health OSHA - Occupational Safety and Health Administration ACGIH - American Conference of Governmental Industrial Hygienists NIOSH - National Institute for Occupational Safety and Health N/A - Not applicable LC50 - lethal concentration to 50% of test subjects LD50 - lethal dose to 50% of test subjects STOT-SE - Specific target organ toxicity (single exposure) STOT-RE - Specific target organ toxicity (repeated exposure) EC50 - effective concentration that causes 50% of response from test subjects ErC50 - EC50 in terms of growth rate reduction CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act SARA - Superfund Amendments and Reauthorization Act TSCA - Toxic Substances Control Act DSL - Domestic Substances List NDSL - Non-Domestic Substances List

This SDS complies with 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD, USA) and GHS. Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, D.S. Brown Company makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will D.S. Brown Company be responsible for damages of any nature whatsoever resulting from the use of, misuse or reliance upon information. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure its activities comply with federal, state or provincial and local laws and regulations.

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