

Specialty Resin & Chemical LLC

Safety Data Sheet

Revision Date: 02-01-2016

1. Identification

Product: Side "A" for Flex-It 80, Flex-It 90, Tough-Cast 65D

Product Use: Resin Casting

Manufacturer/Supplier: Specialty Resin & Chemical LLC.
58100 Park Place
Dowagiac, MI. 49047 USA
Day Phone: 1-269-462-9256 Night: 1-269-487-0079
Email: specialtyresin@yahoo.com

Emergency Contact: Poison Hotline 1-800-222-1222

2. Hazards Identification

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

Classification of the product

Acute Toxicity – Inhalation Category 4

Skin Irritation Category 2

Eye Irritation Category 2A

Skin Sensitization Category 1

Respiratory Sensitization Category 1

Carcinogenicity Category 2

Specific target organ toxicity — single exposure Category 3

Specific target organ toxicity — repeated exposure Category 2

Label Pictogram:



Signal Word: Danger

Hazard Statement:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs (Olfactory organs) through prolonged or repeated exposure (inhalation).

Precautionary Statements (Prevention):

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/gas/mist/vapors.

P271 Use only outdoors or in a well-ventilated area.

Product: Flex-It 80, Flex-It 90, Tough-Cast 65D

Specialty Resin & Chemical LLC

Safety Data Sheet

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P284 [In case of inadequate ventilation] wear respiratory protection.

P302 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water.

P304 + P340 If Inhaled: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

P308 + P313 If exposed or concerned, Get medical attention

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

P501 Dispose of contents/container to hazardous or special waste collection point.

Supplemental Information: Individuals sensitized to isocyanates should discontinue use.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

CAS Number	Content (W/W)	Chemical name
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9016-87-9	45% - 65%	Polymeric methylenediphenyl diisocyanate (MDI) includes isomers and oligomers
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Other ingredients are not classified as health and or environmental hazards, and or are present below cut-off/concentration limits.

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

If on skin:

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water.

Immediate medical attention required.

If swallowed:

Rinse mouth and then drink small quantities of water. Do not induce vomiting unless instructed by a physician. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

Most Important symptoms and affects, both acute and delayed

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: water fog, dry powder, carbon dioxide, foam

Special hazards arising from the substance or mixture

Hazards during fire-fighting: nitrous gases, fumes/smoke, isocyanate, vapor

Advice for fire-fighters

Protective equipment for fire-fighting: Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Specialty Resin & Chemical LLC

Safety Data Sheet

Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Absorb isocyanate with suitable absorbent material (see § 40 CFR, sections 260, 264 and 265 for further information). Shovel into open container. Do not make container pressure tight. Move container to a well-ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90 % water, 8 % concentrated ammonia, 2 % detergent. Add at a 10 to 1 ratio. Allow to stand for at least 48 hours to allow escape of evolved carbon dioxide.

7. Handling and Storage

Precautions for safe handling

Avoid breathing vapors or mists. Use adequate ventilation. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Do not eat, drink, or smoke in the work area. Keep container closed when not in use.

Conditions for safe storage, including any incompatibilities

Keep away from water. Segregate from foods and animal feeds. Segregate from acids and bases. Segregate from bases. Suitable materials for containers: Carbon steel (Iron), High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4301 (V2)

Storage Stability:

Storage temperature: 55-95F

8. Exposure Controls/Personal Protection

Advice on system design:

Provide local exhaust ventilation to maintain recommended P.E.L.

Personal protective equipment

Respiratory protection:

When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. When atmospheric levels may exceed the occupational exposure limit (PEL or TLV) NIOSH-certified air-purifying respirators equipped with an organic vapor sorbent and particulate filter can be used as long as appropriate precautions and change out schedules are in place. For emergency or non-routine, high exposure situations, including confined space entry, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus or a full facepiece pressure demand supplied-air respirator with escape provisions.

Hand protection:

Chemical resistant protective gloves should be worn to prevent all skin contact. Suitable materials may include, chloroprene rubber (Neoprene), nitrile rubber (Buna N), butyl rubber, depending upon conditions of use.

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Specialty Resin & Chemical LLC

Safety Data Sheet

Cover as much of the exposed skin as possible to prevent all skin contact. Suitable materials may include, saran-coated material, depending upon conditions of use.

General safety and hygiene measures:

Wear protective clothing as necessary to prevent contact. Eye wash fountains and safety showers must be easily accessible. Observe the appropriate PEL or TLV value. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

9. Physical and Chemical Properties

Form: Amber liquid

Odor: Mild

Odor threshold: Not determined

Color: yellow/amber

pH value: no data

Freezing point: 37 F

Boiling point: > 300 F

Sublimation point: No applicable information available.

Flash point: > 300 F

Flammable Limits: No data

Vapor pressure: < 0.001 mmHg (25.00 °C)

Density: no data

Vapor density: no data

Self-ignition temperature: not self-igniting

Thermal decomposition: No data

Viscosity: no data

Auto-Ignition temperature: No data

10. Stability and Reactivity

Reactivity

Corrosion to metals: No corrosive effect on metal.

Oxidizing properties: not fire-propagating

Diisocyanates react with many materials and the rate of reaction increases with temperature. Reaction with water generates carbon dioxide and heat.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with alcohols. Reacts with acids. Reacts with alkalis.

Reacts with amines. Risk of exothermic reaction. Risk of polymerization. Contact with certain rubbers and plastics can cause brittleness of the substance/product with subsequent loss in strength.

Conditions to avoid

Avoid moisture.

Incompatible materials

Acids, amines, alcohols, water, Alkalines, strong bases, Substances/products that react with isocyanates.

Hazardous decomposition products

Decomposition products:

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Safety Data Sheet

Hazardous decomposition products: carbon monoxide, carbon dioxide, nitrogen oxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapors

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Human Effects of Overexposure

Inhalation: May cause respiratory sensitization in susceptible individuals. At room temperature, vapors are minimal due to low vapor pressure. If heated or sprayed as an aerosol, excessive concentrations are attainable that could be hazardous on single exposure.

Excessive exposure may cause irritation of the eyes, upper respiratory tract and lungs. Effects may be delayed. Decreased ventilation capacity has been associated with exposure to similar Isocyanates; it is possible that exposure to MDI may cause impairment of lung function.

Skin: May cause allergic skin reaction in susceptible individuals. Prolonged or repeated contact may cause skin irritation and may stain the skin.

Ingestion: This is not considered a common occupation route of exposure, and single dose toxicity is low.

Acute Effects: Medical conditions aggravated by exposure: Asthma, other respiratory disorders (bronchitis, emphysema, bronchial hyper-reactivity), skin allergies, eczema.

Animal Toxicity

Oral, LD50 (ingestion): >20 G/KG (Rats)

Dermal, LDS50 (skin contact): >15.8 G/KG (Rabbits)

Inhalation, LC50 (4 HR): Approx. 370 MG/L (Dapnea, Limnea Invertebrates and Zebra Fish)

Eyes: Liquids, aerosols, or vapors are irritating and can cause tearing, reddening, and swelling following contact.

Skin: Can cause skin irritation, which may include the following: reddening, swelling, rash, scaling, and blistering.

Sensitization to isocyanates may result with prolonged contact.

Other: No conclusive evidence has been developed to indicate that MDI is carcinogenic, teratogenic, or that it causes reproductive effects in animals and humans.

Carcinogenicity: Neither MDI nor Polymeric MDI are listed by the NTP, IARC, or regulated by Federal OSHA or Cal OSHA as carcinogens.

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. Based on long-term (chronic) toxicity study data, the product is very likely not harmful to aquatic organisms.

Toxicity to fish

LC0 (96 h) > 1,000 mg/l, Brachydanio rerio (OECD Guideline 203, static)

Aquatic invertebrates

EC50 (24 h) > 1,000 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants

EC0 (72 h) 1,640 mg/l (growth rate), Scenedesmus subspicatus (OECD Guideline 201, static)

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

Specialty Resin & Chemical LLC

Safety Data Sheet

OECD Guideline 209 aquatic aerobic bacteria from a domestic water treatment plant/EC50 (3 h): > 100 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Poorly biodegradable. The product is unstable in water. The elimination data also refer to products of hydrolysis.

Assessment of stability in water

In contact with water the substance will hydrolyze slowly.

Information on Stability in Water (Hydrolysis) t_{1/2} 20 h (25 °C)

Bio accumulative potential

Assessment bioaccumulation potential

Significant accumulation in organisms is not to be expected.

Bioaccumulation potential

Bio concentration factor: 200 (28 d), Cyprinus carpio (OECD Guideline 305 E)

Mobility in soil

Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is not expected.

13. Disposal considerations

Waste disposal of substance:

Dispose of in compliance with federal, state, or local environmental control regulations. Incinerate or dispose of in a licensed facility.

Do not discharge substance/product into sewer system.

14. Transport Information

Land transport

TDG

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information Federal Regulations

Registration status:

Chemical TSCA, US released/listed

EPCRA 311/312 (Hazard categories): Acute; Chronic

EPCRA 313:

Case Number

Chemical name

101-68-8

Diphenylmethane-4,4'-diisocyanate (MDI)

CERCLA RQ

Case number

Chemical name

5000 LBS

101-68-8

Diphenylmethane-4,4'-diisocyanate (MDI)

Specialty Resin & Chemical LLC

Safety Data Sheet

California Prop. 65: This product does not intentionally contain any chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

State Regulations

<u>State RTK</u>	<u>Case Number</u>	<u>Chemical Name</u>
MA, NJ, PA	101-68-8	Diphenylmethane-4,4'-diisocyanate
NJ	26447-40-5	Methylenediphenyl diisocyanate

NFPA Hazard Codes:

Health: 2 Fire: 1 Reactivity: 1

HMIS Rating:

Health: 2* Flammability: 1 Physical Hazard: 1

16. Other Information

To the best of our knowledge, the information in this Safety Data Sheet (SDS) is considered to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data. Final determination of the suitability of any material is the sole responsibility of the user and the user assumes all risk and liability for its safe use.

Revision Date: 09-01-2019

Specialty Resin & Chemical LLC

Safety Data Sheet

1. Identification

Product: Side "B" for Tough-Cast 65D, Flex-It 10, Flex-It 40, Flex-It 70, Flex-It 80, Flex-It 90

Product Use: Resin Casting

Manufacturer/Supplier: Specialty Resin & Chemical LLC.

58100 Park Place

Dowagiac, MI. 49047 USA

Day Phone: 1-269-462-9256 Night: 1-269-487-0079

Email: specialtyresin@yahoo.com

Emergency Contact: Poison Hotline 1-800-222-1222

2. Hazards Identification

GHS Classification

Skin Sensitizer Category 1

Hazardous to Aquatic Environment – Acute Hazard Category 2

Hazardous to Aquatic Environment – Long Term Hazard Category 2

Label Pictogram:



Signal Word: Warning

Hazard Statement:

H317 May cause an allergic skin reaction

H319 Causes eye irritation

H401 + 411 Toxic to aquatic life with long lasting effects.

Precautionary Statements:

P261 Avoid breathing vapors/mist

P273 Avoid release to the environment

P264 Wash with plenty of water and soap thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352 If on skin: Wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

P333-P313 If skin irritation or rash occurs Get medical advice or attention.

P337 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Content (W/W)	Chemical name
106264-79-3	15% - 35 %	Dimethylthiotoulenediamine

Specialty Resin & Chemical LLC

Safety Data Sheet

Other ingredients are not classified as health and or environmental hazards, and or are present below cut-off/concentration limits.

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air. Seek medical attention if symptoms persist.

If on skin:

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

If swallowed:

Rinse mouth Do not induce vomiting unless instructed by a physician. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: water fog, dry powder, foam

Special hazards arising from the substance or mixture

Hazards during fire-fighting: harmful vapors

Evolution of fumes/fog. The substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting: Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

For small amounts: Pick with absorbent material (e.g. sand, sawdust, general purpose binder).

Dispose of absorbed material in accordance with regulations.

Place absorbed material in the same container as the spilled substance/product for disposal.

7. Handling and Storage

Precautions for safe handling

No special measures necessary provided product is used correctly.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container closed and dry; store in a cool place.

Storage Stability:

Storage temperature: 55-95F

Specialty Resin & Chemical LLC

Safety Data Sheet

Protect against moisture

8. Exposure Controls/Personal Protection

Advice on system design:

Provide local exhaust ventilation to control vapors/mists

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator.

Hand protection:

Chemical resistant protective gloves should be worn to prevent all skin contact. Suitable materials may include, chloroprene rubber (Neoprene), nitrile rubber (Buna N), butyl rubber, depending upon conditions of use.

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Cover as much of the exposed skin as possible to prevent all skin contact. Suitable materials may include, saran-coated material, depending upon conditions of use.

General safety and hygiene measures:

Wear protective clothing as necessary to prevent contact. Eye wash fountains and safety showers must be easily accessible. Observe the appropriate PEL or TLV value. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

9. Physical and Chemical Properties

Form: liquid

Odor: mild

Odor threshold: no data

Color: varies

pH value: no data

Freezing point: 37 F

Boiling point: no data

Sublimation point: No applicable information available.

Flash point: > 250 F

Vapor pressure: <.01 mmHg @ 25 C

Vapor density: no data

Partitioning coefficient noctanol/water (log Pow): no data

Self-ignition temperature: not self-igniting

Thermal decomposition: No data

Viscosity: 500-2000 cps

Auto-Ignition temperature: No data

10. Stability and Reactivity

Reactivity

Normally not reactive

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Safety Data Sheet

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.

The product is chemically stable.

Conditions to avoid

Avoid moisture and excessive heat

Incompatible materials

No data available

Hazardous decomposition products

Thermal decomposition will generate oxides of carbon and nitrogen, oxides of sulfur, organic acids and or other toxic organic compounds.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Skin Contact: May cause skin irritation

Eye Contact: May cause eye irritation

Inhalation: Vapors or mist may cause mild respiratory irritation

Ingestion: Not fully determined

Chronic Health Effects: No data

Acute Toxicity: No data

Respiratory Irritation: Not classified as respiratory irritants

Respiratory Sensitization: Not classified as respiratory sensitizers.

Skin Irritation: Not classified as skin irritants

Skin Sensitization: Not classified as skin sensitizers.

Eye Irritation: Not classified as eye irritants.

Carcinogenicity: Not classified as carcinogens

Germ Cell Mutagenicity: Not classified as mutagens

Reproductive toxicity: Not classified as reproductive toxins.

Specific Target Organ Toxicity: No data

12. Ecological Information

Ecotoxicity: Based on the concentration of dimethylthiolumenediamine these products are classified as hazardous to the aquatic environment.

Persistence and degradability: No data

Bioaccumulative potential: No data

Mobility in Soil: No data

13. Disposal considerations

Waste disposal of substance:

Dispose of in compliance with federal, state, or local environmental control regulations. It is the waste generators responsibility to determine if a particular waste is hazardous under RCRA.

Specialty Resin & Chemical LLC

Safety Data Sheet

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations:

CERCLA 103 Reportable Quantity: This product is not subject to reporting under CERCLA.

California Prop. 65: This product does not intentionally contain any chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

NFPA Hazard Codes:

Health: 2 Fire: 1 Reactivity: 1

HMIS Rating:

Health: 2 Flammability: 1 Physical Hazard: 1

16. Other Information

To the best of our knowledge, the information in this Safety Data Sheet (SDS) is considered to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data. Final determination of the suitability of any material is the sole responsibility of the user and the user assumes all risk and liability for its safe use.

Revision Date: 09-01-2019