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Dalton, GA

Hickory, NC

Mount Airy, NC

Salt Lake City, UT

Section 1: Identification

Product Identifier

Trade Name: A2-000 **Chemical Name:** Diphenylmethane Diisocyanate (MDI) **Recommended Use:** Component for production of polyurethanes **Restrictions on Use:**

Chemical Manufacturer Information

Name:	NCFI Polyurethanes	Phone:	(800) 346-8229
Address:	1515 Carter St Mount Airy, NC 27030	Fax:	(336) 789-9586
Website:	www.NCFI.com	Emergency Phone:	CHEMTREC: 800-424-9300

Section 2: Hazard Identification

Classification of the substance or mixture

GHS Classification:			
Skin irritation, Category 2	Acute toxicity, Inhalative, Category 4		
Sensitization of respiratory airways, Category 1	• Eye irritation, Category 2		
Carcinogenicity, Category 2	Sensitization of the skin, Category 1		
• Specific target organ toxicity (repeated exposure),	• Specific target organ toxicity (single exposure), Category 3		
Category 2			

GHS Labeling:



Danger

Hazard Statements:	
May cause an allergic skin reaction	Causes skin irritation
Harmful if inhaled	Causes serious eye irritation
May cause respiratory irritation	• May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause damage to organs through prolonged or repeated exposure	Suspected of causing cancer

Precautionary Statements:			
• Do not breathe dust/fume/gas/mist/vapors/spray	• IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing		
Wear protective gloves/eye protection/face protection	• IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.		
• IF ON SKIN: Wash with plenty of soap and water			

Other Hazards: Persons with respiratory conditions should avoid handling this product.





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Section 3: Composition

Hazardous Components

Type of product: substance

CAS#	Weight %	Name
101-68-8	38.0%	Diphenylmethane-4,4'-diisocyanate (MDI)
26447-40-5	< 10.0%	MDI Mixed Isomers
9016-87-9	< 55.0%	P-MDI

Section 4: First Aid Measures

General:	Remove contaminated clothing	
Inhalation:	Remove affected individual to fresh air and keep person calm. Assist in breathing if necessary. Immediate	
	medical attention required.	
Skin Contact:	Wash affected areas with soap and water. Seek medical attention for irritation.	
Eye Contact:	Rinse for at least 15 minutes with water. Immediate medical attention required.	
Ingestion:	Rinse mouth and drink plenty of water. Do not induce vomiting. Immediate medical attention required.	

Section 5: Fire-Fighting Measures

Suitable extinguishing media:	Water, dry chemicals, CO ₂	
Unsuitable extinguishing media: High volume water jet		
Special hazards arising from the	At temperatures above 400°F, MDI can polymerize/decompose causing pressure	
chemical:	build-up in closed containers and possibly rupture. Avoid water contamination in	
	closed containers which may cause rupture (CO ₂ is evolved).	
Precautions for firefighters:	Firefighters should be equipped with self-contained breathing apparatus and	
	turnout gear.	

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and	Clear area. Ensure adequate ventilation. Wear suitable personal protective	
emergency procedures:	clothing and equipment.	
Environmental precautions:	Do not discharge into drains/surface waters/groundwater	
Methods/material for containment and cleanup:	Physically remove; cover remainder with wet, absorbent material (e.g.	
	sawdust, chemical binder based on calcium silicate hydrate, sand). After	
	approx. one hour transfer to waste container and do not seal (evolution of	
	CO ₂). Keep damp in a safe ventilated area for several days.	

Spill area can be decontaminated with the following recommended decontamination solution:

Decontamination Solution #1: 8-10% sodium carbonate and 2% liquid soap in water

Decontamination Solution #2: Liquid/yellow soap (potassium soap with ~15% anionic surfactant): 20 ml; Water: 700 ml; Polyethylene glycol (PEG 400): 350 ml



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Section 7: Handling and Storage

Precautions for safe handling:	Provide sufficient air exchange and/or exhaust in work rooms. Occupational exposure limits should not be exceeded (refer to Section 8). Contact with skin and eyes and inhalation of vapors must be avoided. Keep away from foodstuffs, drinks, and tobacco. Wash hands before breaks and at end of work.	
Conditions for safe storage, including any	Keep container tightly closed and protect against moisture. Segregate from bases.	
incompatibilities:	Store from $32^{\circ}F - 110^{\circ}F$.	

Section 8: Exposure Controls and PPE

Exposure Limits

Component	Туре	Value
P-MDI	OSHA PEL	CLV 0.005 ppm 0.051mg/m3
Diphenylmethane-4,4'-diisocyanate (MDI)	OSHA PEL	CLV 0.005 ppm 0.051mg/m3

Exposure Controls

Respiratory Protection:	Respiratory protection required in insufficiently ventilated working areas and during spraying. An air-fed mask, or for short periods of work, a combination of charcoal filter and particulate filter is recommended.	
Hand, eye, skin, body protection:	Chemical resistant protective gloves should be worn to prevent all skin contact. Wear eye/face protection. Wear suitable protective clothing	

Section 9: Physical and Chemical Properties

Basic chemical and physical properties

Appearance:	liquid	Flammability	not applicable
Color	dark amber	Upper/lower flammability or explosive limits	Not applicable
Odor	Slightly aromatic	Vapor pressure	0.00016 mmHg
Odor threshold	not established	Vapor density	not established
pH	not established	Relative density	1.24
Melting pt/freezing pt	3° C	Solubility(ies)	Reacts with water
Boiling pt/boiling range	>300°C	Partition coefficient (n-octanol/water)	not established
Flash point	>250°C	Auto-ignition temperature	not applicable
Evaporation rate	not established	Decomposition temperature	not established

Section 10: Stability and Reactivity

Chemical stability:	Polymerizes at about 200° C with evolution of CO ₂	
Possibility of hazardous reactions:	Exothermic reaction with amines and alcohols; reacts with water forming CO ₂ ; in closed	
	containers, risk of bursting owing to increase of pressure	
Conditions to avoid:	Avoid moisture	
Incompatible materials:	water, alcohols, strong bases, amines	



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Hazardous decomposition products:	By high heat or fire; CO, CO ₂ , HCN	NOx, benzene, toluene, aliphatic fra	igments and traces of

Section 11: Toxicological Information

Acute toxicity (inhalation):	LC50: 490mg/kg, vapor, 4hr rat
Chronic toxicity:	2 years, inhalation; NOAEL: 0.2mg/m3, (rat, Male/Female,
	6hrs/day 5 days/week)
Likely routes of exposure:	Skin, inhalation
Symptoms related to physical, chemical and toxicological	Minor skin irritation; asthma-like symptoms
characteristics:	
Delayed and immediate effects and chronic effects from	Possible sensitization
short and long-term exposure:	
Numerical toxicity measures:	

Section 12: Ecological Information

Ecotoxicity:	LC0: >1,000mg/l (Zebra fish 96 hrs) LC0: >3,000mg.l (Killifish 96hrs)	
Persistence and degradability:	0%	
Bioaccumulative potential:	Does not bioaccumulate	
Mobility in soil:		

Section 13: Disposal

Waste disposal:Incinerate or dispose of in a licensed facility. Do not discharge substance/product into sewer system. Do not
burn empty drums or cut open with gas or an electric torch as toxic decomposition products may be liberated.
Do not reuse empty containers.

Section 14: Transport

USDOT	Not classified as dangerous good	
China	Not classified as dangerous good	

Sea transport	
IMDG	Not classified as dangerous good

Air transport	
ΙΑΤΑ/ΙCΑΟ	Not classified as dangerous good

Further information

DOT: This product is regulated if the amount in a single receptacle exceeds the Reportable Quantity (RQ). Refer to Section 15 for the RQ of this product.



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Section 15: Regulatory

Relevant safety, health, and environmental regulations:	
Inventory Status:	TSCA listed
US Regulations:	Not regulated
US Superfund Amendments and Reauthorization Act	Methylene Bis Phenylisocyanate 101-68-8 5000 lbs.
(SARA) Title III Section 313 information:	(Same as Diphenylmethane diisocyanate (MDI)
	Polymeric Diphenylmethane diisocyanate 9016-87-9

Section 16: Other

SDS Preparation Date:	05/08/2017
Revision Date:	10/24/2017
Revision 2 Date:	10/27/2017

IMPORTANT NOTICES

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