
Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name:

Carlisle One Step Foamable Adhesive

Synonym:

Diphenylmethane Diisocyanate

Product Use:

Two-part adhesive for roofing systems

Restrictions on Use:

For industrial use only

Manufacturer Information

Carlisle SynTec
1285 Ritner Highway
Carlisle, PA 17013
USA
Phone: +1-800-479-6832
Emergency Phone #: +1-800-424-9300 (CHEMTREC)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Respiratory Sensitization – Category 1
Acute Toxicity – Category 4
Skin Corrosive/Irritation – Category 2
Eye Damage/Irritation – Category 2A
Skin Sensitivity – Category 1
Specific Target Organ Toxicity - Single Exposure – Category 3

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement:

Harmful if inhaled.
Causes skin irritation
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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May cause an allergic skin reaction.
May cause respiratory irritation.

Precautionary Statements (Prevention):

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Wear respiratory protection.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves.
Wear eye protection / face protection.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.

Precautionary Statements (Response):

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Specific treatment (see on this label).
If experiencing respiratory symptoms: Call a poison center/doctor.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a poison center/doctor if you feel unwell.
Wash contaminated clothing before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If on skin: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):

Store locked up.
Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statements (Disposal):

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	25-50
101-68-8	4,4'-methylenediphenyl diisocyanate	25-50
	Polyol	10-25

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26447-40-5	methylenediphenyl diisocyanate	2.5-10
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section.

Section 4 - FIRST AID MEASURES

GENERAL ADVICE: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

EYES: Rinse opened eye for 20 minutes under running water. Call a Doctor immediately.

SKIN: If skin becomes irritated seek medical attention. Immediately wash with water and soap and rinse thoroughly.

INGESTION: Rinse out mouth with water. Drink 1 - 2 glasses of water but DO NOT induce vomiting. Do not give liquids to a drowsy, convulsing or unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Seek medical treatment.

INHALATION: Supply fresh air and to be sure call for a doctor. In case of unconsciousness, place patient stably in side position for transportation. Call a doctor immediately. Overexposure, remove to fresh air and seek medical attention.

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable methods of extinction: CO₂, sand, extinguishing powder. Do not use water. Use fire fighting measures that suit the environment.

Unsuitable methods of extinction: Water

Special hazards arising from the substance or mixture: No further relevant information available.

Advice for Firefighters

Protective equipment: Mouth respiratory protective device. Protective clothing and respiratory protective device.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.

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Environmental precautions

No special measures required.

Methods and material for containment and cleaning up

Cover spilled material with neutralization solution (see below) and mix. Wait 15 minutes. Collect material in openhead metal containers. Repeat neutralization and cleaning process until surface is decontaminated. Apply drum lid but DO NOT secure. Allow containers to vent for 72 hours to let carbon dioxide escape. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste in accordance with federal state and local regulations. Ensure adequate ventilation.

Reference to other sections

Neutralization solutions:

1. A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.
 2. A mixture of 80% water, 20% non-ionic surfactant.
- See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

Section 7 - HANDLING AND STORAGE

Precautions for safe handling

Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Wash thoroughly after handling. Prevent formation of aerosols.

Protection against fire and explosion:

Product reacts with water. Reaction may produce heat and/or gases.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles: Keep containers tightly closed when not in use. Protect from atmospheric moisture.

Information about storage in one common storage facility: Keep away from open flames and high temperatures.

Further information about storage conditions: Storage Temperature - 32F - 90F. Keep receptacle tightly sealed.

Specific end use(s): No further relevant information available.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical systems: No further data.

Component Exposure Limits

4,4'-methylenediphenyl diisocyanate	101-68-8
PEL	Ceiling limit value: 0.2 mg/m ³ , 0.02 ppm

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REL	Long-term value: 0.05 mg/m ³ , 0.005 ppm Ceiling limit value: 0.2* mg/m ³ , 0.02* ppm *10-min
TLV	Long-term value: 0.051 mg/m ³ , 0.005 ppm

Additional information: MDI products have poor warning properties, since recognition of an odor is far above the TLV. Observe OSHA regulations for respirator use (29 CFR 1910.134). The lists that were valid during the creation were used as basis.

Personal protective equipment

Respiratory protection:

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

Hand protection:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves: Chloroprene rubber, CR, Nitrile rubber, NBR, Butyl rubber, BR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Face Shield
Safety glasses with side shields.

Other Protective Equipment:

Apron
Protective work clothing

Hygiene Measures:

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Light amber to off white liquid	Form	Liquid
Odor	Faint aromatic	Odor threshold	Not available

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Initial Boiling Point and Boiling Range /Boiling Point (@ 5mmHg)	Not available	Flammability Limit	Not available
Melting/Freezing Point (@ 1 ATM)	Not available	Vapor Pressure in container(20°C)	1.12 g/cm ³ (9.346 lbs/gal)
Vapor Pressure of Liquid	0 mm Hg	Partition coefficient: n-octanol/water	Not available
Autoignition	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.	Flash Point	176° C (349° F)
Solubility	Not miscible or difficult to mix	Viscosity	Not available
Vapor Density (air=1)	Not available	Decomposition Temperature	Not available
Oxidizing Properties	Not available	pH	Not available
Relative Density/Specific Gravity	Not available	Evaporation rate:	Not available
Lower Flammability/Explosive Limit	Not available	Upper Flammability/Explosive Limit	Not available

Section 10 - STABILITY AND REACTIVITY

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical Stability

Thermal decomposition / conditions to be avoided: Contact with moisture, other materials that react with isocyanates, or temperatures above 350F (177C), may cause polymerization.

Possibility of Hazardous Reactions

May produce violent reactions with bases and numerous organic substances including alcohols and amines. MDI reacts slowly with water to form Carbon Dioxide gas. This gas can cause sealed containers to expand and possibly rupture. Contact with moisture, other materials that react with isocyanates, or temperatures above 350F, may cause polymerization.

Conditions to Avoid

Exposure to high temperatures. Moisture

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Incompatible Materials

Reacts with amines, caustic alkali solutions, alcohols, ammonia, oxidizers, acids, polyols. Reacts with water forming carbon dioxide-may rupture sealed containers if contaminated with water.

Hazardous decomposition products:

Carbon dioxide, carbon monoxide, oxides of nitrogen, dense black smoke, hydrogen cyanide, isocyanic acid, other undetermined compounds.

Section 11 - TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity/Effects

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

4,4'-methylenediphenyl diisocyanate (101-68-8)
Oral LD50 Mouse 2200 mg/kg

Skin irritation

Skin irritant. Irritant to skin and mucous membranes.

Eye irritation

Irritating effect.

Sensitization

Inhalation – Sensitization possible through inhalation.

Skin Contact – Sensitization possible through skin contact.

Additional toxicological information

The product shows the following dangers according to internally approved calculation methods for preparations: Harmful, Irritant

Carcinogenicity

IARC: diphenylmethanediisocyanate, isomers and homologues (9016-87-9); 4,4'-methylenediphenyl diisocyanate (101-68-8)

NTP: None of the ingredients is listed.

OSHA-Ca: None of the ingredients is listed.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Bioaccumulation potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Additional ecological information:

General notes: All present there are no ecotoxicological assessments

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Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

Section 13 - DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Must be specially treated adhering to official regulations. Disposal must be made according to official regulations.

Uncleaned packagings

Disposal must be made according to official regulations.

Section 14 - TRANSPORT INFORMATION

UN-Number

DOT, ADR, ADN, IMDG, IATA Not regulated

UN proper shipping name

DOT, ADR, ADN, IMDG, IATA Not regulated

Transport hazard class(es)

DOT, ADR, ADN, IMDG, IATA Not regulated

Packing group

DOT, ADR, IMDG, IATA Not regulated

Environmental hazards

Not applicable

Special precautions for user

Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Transport/Additional information

MDI (CAS 101-68-8) exhibits a CERCLA RQ equal to 5,000 pounds. Quantities less than the RQ amount are not regulated in transportation.

UN "Model Regulation"

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Section 15 - REGULATORY INFORMATION

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

SARA Section 355 (extremely hazardous substances): diphenylmethanediisocyanate, isomers and homologues (9016-87-9); 4,4'-methylene diphenyl diisocyanate (101-68-8)

SARA 313 (specific toxic chemical listings): MDI and PMDI are subject to reporting levels established by Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

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TSCA (Toxic Substances Control Act): All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: None of the ingredients listed are known to cause cancer or other reproductive harm.

(DSL) Canada Domestic Substance List: All components of this product are on the DSL (Canada Domestic Substance List) or are exempt from DSL requirements.

Carcinogenicity categories

EPA (Environmental Protection Agency)		
9016-87-9	diphenylmethanediisocyanate, isomers and homologues	CBD
101-68-8	4,4'-methylenediphenyl diisocyanate	D, CBD
TLV (Threshold Limit Value established by ACGIH)		
None of the ingredients listed.		
MAK (German Maximum Workplace Concentration)		
9016-87-9	diphenylmethanediisocyanate, isomers and homologues	4
101-68-8	4,4'-methylenediphenyl diisocyanate	4
NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 1* Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

New SDS: 6/24/2016

Key / Legend

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use