

# SAFETY DATA SHEET

REVISED: 12.10.2018

## ===== SECTION 1 - IDENTIFICATION =====

MANUFACTURER:	Diamapro Systems, Inc.	EMERGENCY PHONE:	1-800-424-9300
ADDRESS :	325 West Front Street	INFORMATION PHONE:	1-800-622-2048
	Erie, PA 16507	NAME OF PREPARER:	Safety Director

**PRODUCT NAME: Diamapro Diama-Joint Fill Component "A"****PRODUCT CODE: DPJF**

## ===== SECTION 2 - HAZARDS IDENTIFICATION =====

**Classification of substance or mixture****GHS08 Health Harzard**

Reps. Sens. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
Carc. 2	H351	Suspect of causing cancer
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure

**GHS07**

Skin Irrt. 2	H315	Causes skin irritation
Eye Irrt. 2A	H319	Causes serious eye irritation
Skin Sens. 1	H317	May cause an allergic skin reaction
STOT SE 3	H335	May cause respiratory irritation

**Label elements****GHS Label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS)

**Hazard pictograms**GHS07  
GHS08**Signal word:**

Warning

**Hazard – determining components of labeling:**4,4' – methylene diphenyl diisocyanate  
methylene diphenyl diisocyanate**Hazard statements:**Cause skin irritation  
Causes serious eye irritation  
May cause allergy or asthma symptoms or breathing difficulties if inhaled  
May cause an allergic skin reaction  
Suspected of causing cancer  
May cause respiratory irritation  
May cause damage to organs through prolonged or repeated exposure**Precautionary statements**Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Do not breathe dust/fume/gas/mist/vapors/spray  
Wash thoroughly after handling  
Use only outdoors or in a well-ventilated area  
Incase of inadequate ventilation, wear respiratory protection  
Contaminated work clothing must not be allowed out of the workplace  
Wear protective gloves/clothing/eye protection  
Wear eye protection/face protection  
If on skin; Wash with plenty of water  
If inhaled: Remove person to fresh air and keep comfortable for breathing  
If in eyes: Rinse cautiously with water for several minutes  
Remove contact lenses. If present and easy to do. Continue rinsing  
Get medical advice/attention if you feel unwell  
If eye irritation persists, get medical advice/attention  
Dispose of contents/container in accordance with local/regional/national/international regulations  
Call a poison center/doctor if you feel unwell  
Specific treatment – see on this label  
Take off contaminated clothing and wash it before reuse  
If skin irritation or rash occurs; Get medical advice/attention

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If eye irritation persists: Get medical advice/attention  
Store in a well-ventilated place. Keep container tightly closed

**Classification system:**
**NFPA ratings (scale 0-4)**

Health = 2  
Fire = 1  
Reactivity = 0

**HMIS – ratings (scale 0-4)**

Health = 2  
Fire = 1  
Reactivity = 0

**Other hazards**
**Results of PBT and vPvB assessment**

**PBT:** Not applicable  
**vPvB:** Not applicable

===== **SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS** =====

**Chemical characterizations:**

Mixtures

**Description:**

Mixture of substance listed below with nonhazardous additions

**Dangerous Components**

101-68-8	4,4' – methylene diphenyl diisocyanate <div style="text-align: right;">&gt;25-≤50%</div> Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrt. @, H315; Eye Irrt. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335
26447-40-5	methylene diphenyl diisocyanate <div style="text-align: right;">≥0.1-&lt;1%</div> Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrt. 2, H315; Eye Irrt. 2A, H317; STOT SE 3, H335

===== **SECTION 4 - FIRST AID MEASURES** =====

**General Information:**

Symptoms of poisoning may even occur after several hours; therefore, medical observation for at least 48 hours after the accident

**Description of first aid measures**
**After inhalation:**

Seek medical treatment in case of complications  
Supply fresh air and to be sure call a doctor in case of complaints  
In case of unconsciousness place patient stably in side position for transportation

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly

**After eye contact:**

Rinse opened eye for 15 minutes under running water. If symptoms persist, consult a doctor

**After swallowing:**

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if victim is unconscious or having convulsions. If symptoms persist, consult doctor.

**Information for the doctor:**
**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 AND EXPLOSION HAZARD DATA** =====

**Extinguishing Media**
**Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder, foam or water spray, Fight larger fires with water spray

**Special hazards arising from the substance or mixture**

Hazards during fire-fighting:

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Nitrous gases, fumes/smoke, isocyanate, vapor

**Advice for firefighters**

**Protective equipment:**

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear

**Additional Information:**

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations

===== SECTION 6 - ACCIDENTAL RELEASE MEASURES =====

**Personal precautions, protective equipment and emergency procedures**

Clear area

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

**Environmental precautions**

Do not allow to reach ground water, water course or sewage system

**Methods and material for containment and clean up**

Dispose contaminated material as waste according to Item 13

Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders)

Send for recovery or disposal in suitable receptacles

Ensure adequate ventilation

**Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal equipment

See Section 13 for disposal information

**Protective Action Criteria for Chemicals**

**PAC – 1**

101-68-8	4,4' – methylene diphenyl diisocyanate	0.45 mg/m <sup>3</sup>
26447-40-5	methylene diphenyl diisocyanate	29 mg/m <sup>3</sup>

**PAC 2**

102-60-3	4,4' – methylene diphenyl diisocyanate	5 mg/m <sup>3</sup>
26447-40-5	methylene diphenyl diisocyanate	40 mg/m <sup>3</sup>

**PAC 3**

102-60-3	4,4' – methylene diphenyl diisocyanate	55 mg/m <sup>3</sup>
26447-40-5	methylene diphenyl diisocyanate	240 mg/m <sup>3</sup>

===== SECTION 7 - HANDLING AND STORAGE =====

**HANDLING INFORMATION:**

**Precautions for safe handling:**

Ensure thorough ventilation of stores and work area.

Protect against moisture

Avoid aerosol formation

When handling heated product, vapors of product should be ventilated, and respiratory protection used.

Wear respiratory protection when spraying

Danger of bursting when sealed gas tight

If bulging of drum occurs, transfer to well ventilated area, puncture to relieve pressure, open vent and let stand for 48 hours before resealing

Keep out of the reach of children

**Information about protection against explosions and fires:**

No special measures required

**Conditions for safe storage, including any incompatibilities**

Segregate from foods and animal feeds.

**Storage**

**Requirements to be met by storerooms and receptacles**

Carbon steel, (Iron), High density polyethylene (HDPE), low density polyethylene (LDPE)

**Information about storage in one common storage facility:**

Not required

**Further information about storage conditions:**

Keep receptacle tightly sealed

**Specific end use(s):**

No relevant information available

===== SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION =====

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**Additional information about design of technical systems:**

No further data; see Item 7

**Control Parameters**
**Components with limit values that require monitoring at the workplace:**
**101-68-8                      4,4' – methylene diphenyl diisocyanate**


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 PEL      Ceiling limit value: 0.2 mg/m<sup>3</sup>, 0.02 ppm

 REL      Long-term value: 0.05 mg/m<sup>3</sup>, 0.005 ppm

           Ceiling limit value: 0.2\* mg/m<sup>3</sup>, 0.02\* ppm  
           \*10-min

 TLV      Long-term value: 0.051 mg/m<sup>3</sup>, 0.005 ppm
 

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**Additional information:**

The lists that were valid during the creation were used as basis

**Personal Protection Equipment:**
**General protective and hygienic measures:**

Wash hands before breaks and at the end of work

Keep away from foodstuffs, beverages and feed

Immediately remove all soiled and contaminated clothing

Store protective clothing separately

Avoid contact with eyes

Avoid contact with eyes and skin

**Engineering controls:** No relevant information available

**Breathing Equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**PROTECTIVE GLOVES:**

Prevent prolonged or repeated contact by wearing chemical resistant gloves and other appropriate protective clothing.

The selection of the 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 cannot be calculated in advance and has therefore need to be checked prior to use.

**Penetration time of glove material:**

The exact break through time must be found out by the manufacturer of the protective gloves and has to be observed

**EYE PROTECTION:**

Wear safety glasses to reduce eye contact potential. Chemical safety goggles (ANSI Z87.1 or approved equivalent) are appropriate if splashing is likely. Eye washes must be available where eye contact can occur.

**Body Protection:**

Protective work clothing

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:**

A source of clean water should be available for flushing eyes and skin. Showers should be available if larger spills are possible.

Protective work clothing

===== SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES =====

**Information on basic physical and chemical properties**
**Appearance**

<b>Form</b>	Liquid
<b>Color</b>	<b>Yellow, Clear</b>
<b>Odor</b>	Mild
<b>Odor Threshold</b>	Not determined
<b>pH value</b>	Not determined
<b>Melting point/Melting range</b>	Not Determined
<b>Boiling point/Boiling range</b>	200° C (392° F)
<b>Flash point</b>	200° C (392°F)
<b>Flammability (solid, gas)</b>	Not applicable
<b>Ignition temperature</b>	520°C (968°F)
<b>Auto-Ignition temperature</b>	Product is not self-igniting
<b>Decomposition temperature</b>	Not Determined
<b>Danger of explosion</b>	Product is not explosive.

**Explosion limits**

<b>Lower</b>	Not Determined
<b>Upper</b>	Not Determined
<b>Oxidizing properties</b>	Not Determined

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<b>Vapor pressure</b>	Not determined
<b>Density at 20° C (68°F)</b>	1.09881 g/cm <sup>3</sup> , (9.16957 lbs/gal)
<b>Relative density</b>	Not Determined
<b>Vapor density</b>	Not Determined
<b>Evaporation rate</b>	Not Determined
<b>Solubility in / Miscibility with Water</b>	Not miscible or difficult to mix
<b>Partition coefficient (n-octanol/water)</b>	Not Determined
<b>Viscosity</b>	
<b>Dynamic</b>	Not determined
<b>Kinematic</b>	Not Determined
<b>Solvent Content:</b>	
<b>VOC content:</b>	0.00%
	0.0 g/l (0.00 lb/gl)
<b>Solids Content:</b>	41.3%
<b>Other information</b>	No relevant information available

### ===== SECTION 10 - STABILITY AND REACTIVITY DATA =====

**Reactivity:** No relevant information available

**Chemically stability**

**Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications

**Possibility of hazardous reactions**

Contact with certain rubbers and plastics can cause brittleness of the substance/product with subsequent loss in strength.

Exothermic reaction

**Conditions to avoid**

Moisture

**Incompatible materials**

Acids, amines, alcohols, water, alkalines, strong bases, Products that react with isocyanates

**Hazardous decomposition products**

Aromatic isocyanates, gases/vapors, carbon monoxide, carbon dioxide, nitrogen oxide, hydrogen cyanide

### ===== SECTION 11 - TOXICOLOGICAL INFORMATION =====

**Information on toxicological effects**

**Acute toxicity**

**LD/LC50 values that are relevant for classification:**

**ATE (Acute Toxicity Estimate)**

Oral LD50 5.324 mg/kg (mouse)

Inhalative LD50/4 h >26.6 mg/l

**101-68-8 4,4' – methylene diphenyl diisocyanate**

Oral LD50 2.200 mg/kg (mouse)

**Primary irritant effect:**

**On the skin:**

Irritant effect and mucous membranes

**On the eyes:**

No Irritating effect

**Sensitization:**

Sensitization possible through inhalation

Sensitization through skin contact

**Additional toxicological information:**

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

Harmful

Irritant

**Carcinogenic categories**

**IARC (International Agency for Research on Cancer)**

101-68-8 4,4' – methylene diphenyl diisocyanate

**NTP (National Toxicology Program):**

None of the ingredients are listed

**OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed

### ===== SECTION 12 - ECOLOGICAL INFORMATION =====

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### Toxicity

#### Aquatic toxicity

No relevant information available

#### Persistence and degradability;

No relevant information available

#### Bioaccumulative potential:

No relevant information available

#### Mobility in soil:

No relevant information available

#### Additional ecological information

#### General notes:

Water hazard Class 1 (Self-assessment): Slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system

#### Results of PBT and vPvB assessment

#### PBT:

Not applicable

#### vpvB:

Not applicable

#### Other adverse effects:

No relevant information available

### ===== SECTION 13 - DISPOSAL CONSIDERATIONS =====

#### Waste treatment methods

#### Recommendations:

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relative local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

#### Uncleaned packaging's

**Recommendation:** Disposal must be made according to official regulations

### ===== SECTION 14 - TRANSPORT INFORMATION =====

#### UN-Number

DOT, AND, IMDG, IATA not regulated

#### UN, proper shipping name

DOT, AND, IMDG, IATA not regulated

#### Transportation hazard class(es)

DOT, AND, IMDG, IATA

#### Class

not recognized

#### Packing group

DOT, AND, MGD, IATA not regulated

#### Environmental hazards

Not applicable

#### Special precautions for user

Not applicable

#### Transport in bulk according to Annex II

of MARPOL73/78 and the IBC code Not applicable

#### UN "Model Regulation":

not regulated

### =====SECTION 15 - REGULATORY INFORMATION =====

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

#### United States (USA)

#### SARA

#### Section 355 (extremely hazardous substances):

None of the ingredients are listed

#### Section 313 (Specific toxic chemical listings):

101-68-8 4,4' – methylene diphenyl diisocyanate

#### TSCA (Toxic Substance Control Act)

101-68-8 4,4' – methylene diphenyl diisocyanate

25686-28-6 Benzene, 1,1' – methylenebis 4-isocyanato -, homopolymer

26447-40-5 methylene diphenyl diisocyanate

#### Proposition 65 (California)

#### Chemicals Known to cause cancer

None of the ingredients are listed

#### Chemicals known to cause reproductive toxicity for females:

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None of the ingredients are listed

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed

**Chemicals known to cause development toxicity:**

None of the ingredients are listed

**Carcinogenic categories**

**EPA (Environmental Protection Agency)**

101-68-8                      4,4' – methylene diphenyl diisocyanate

**TLV (Threshold Limit Value established by ACGIH)**

None of these ingredients are listed

**NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of these ingredients are listed

**GHS Label elements:**

The product is classified and labeled according to the Globally Harmonized System (GHS)

**Hazard Pictograms**

GHS07

GHS08

**Signal word:**

Danger

**Hazard-determining components of labeling:**

4,4' – methylene diphenyl diisocyanate

diethylmethylbenzenediamine

**Hazard statements:**

Causes skin irritation

Causes serious eye irritation

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

Suspected of causing cancer

May cause respiratory irritation

May cause damage to organs through prolonged or repeated exposure

**Precautionary statements**

Obtain special instructions before use

Do not breathe dust/fume/gas/mist/vapors/spray

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

Use only outdoors or in well-ventilated area

Wash thoroughly after handling

Contaminated work clothing must not be allowed out of the workplace

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

IF INHALED: Remove person to fresh air and keep comfortable for breathing

In eye: Rinse continuously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

I exposed or concerned: Get medical advice/attention

Get medical advice/attention if you feel unwell.

If experiencing respiratory symptoms: Call poison center

If eye irritation persists: Get medical advice/attention

Store in a well-ventilated place.

Keep container tightly closed

Store locked up

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

**Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out

=====SECTION 16 - OTHER INFORMATION =====

**This information is based on our present knowledge. However, the shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.**

Abbreviations and acronyms

ADR:                      European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG:                    International Maritime Code for Dangerous Goods

DOT:                     US Department of Transportation

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IATA:	International Air Transport Association
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
LC50:	Lethal Concentration, 50 percent
LD50:	Lethal dose, 50 percent
PBT:	Persistent, Bio-accumulabe, Toxique
vPvB:	very Persistent and very Bio-accumulabe
NIOSH:	National Institute for Occupational Safety and Health
OSHA:	Occupational Safety & Health Administration
Flam. Liq. 3:	Flammable liquids – Category 3
Acute Tox. 4:	Acute toxicity – Category 4
Skin Irrt. 2A:	Skin corrosion / irritation – Category 2A
Eye Irrt. 2A:	Serious eye damage / eye irritation – Category 2A
Skin Sens. 1:	Skin sensitisation – Category 1