

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 Diamagrout Component "A"
PRODUCT CODE: DPDG

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

Classification of substance or mixture

GHS08 Health Hazard

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

GHS07 Health Hazard

Acute Tox. 4	H332	Harmful if inhaled
Skin Irr. 2	H315	Causes skin irritation
Eye Irr. 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:

Danger

Hazard-determining components of labeling:

4,4' – methylene diphenyl diisocyanate
 Diphenylmethanediisocyanate, isomers and homologues
 Methylene diphenyl diisocyanate

Hazard statements:

Harmful if inhaled
 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 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
 Contaminated work clothing must not be allowed out of the workplace
 Wear protective gloves/protective clothing/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.
 IF exposed or concerned: Get medical advice/attention
 Call a poison center/doctor if you feel unwell
 Specific treatment (see on this label)
 Get medical advice/treatment if you feel unwell
 Take off all contaminated clothing and wash it before reuse
 If skin irritation persists: Get medical advice/attention
 If experiencing respiratory symptoms: Call poison center/doctor

SAFETY DATA SHEET

Wash contaminated clothing before reuse
 Store in well-ventilated place. Keep container completely closed
 Store locked up
 Dispose of contents/container in accordance with local/regional/national/international regulations

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 Resp. Sens. 1, H334; Carc.2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrt. 2, H315; Eye Irrt. 2A H319; Skin Sens. 1, H317; STOT SE 3, H335
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues Resp. Sens. 1, H334; Carc.2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrt. 2, H315; Acute Tox. 4, H312, Eye Irrt. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335
26447-40-5	methylene diphenyl diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; skin Irrt. 2, H315; Eye Irrt. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335

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

General information:

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

After inhalation:

Supply fresh air and to be sure call a doctor
 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:

CO₂, extinguishing powder or water spray, Fight larger fires with water spray

SAFETY DATA SHEET

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

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 undiluted product or large quantities of it 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

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 ³
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues	0.15 mg/m ³
26447-40-5	methylene diphenyl diisocyanate	29 mg/m ³

PAC 2

101-68-8	4.4' methylene diphenyl diisocyanate	5 mg/m ³
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues	3.6 mg/m ³
26447-40-5	methylene diphenyl diisocyanate	40 mg/m ³

PAC 3

101-68-8	4.4' methylene diphenyl diisocyanate	55 mg/m ³
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues	22 mg/m ³
26447-40-5	methylene diphenyl diisocyanate	240 mg/m ³

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

HANDLING INFORMATION:

Precautions for safe handling:

Open and handle receptacle with care

Protect against moisture

Avoid aerosol formation

Wear respiratory protection when spraying

Use only in well ventilated areas

Avoid contact with eyes and skin

Avoid breathing mist, vapors, or spray

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

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

Specific end use(s):

No relevant information available

SAFETY DATA SHEET

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

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:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

101-68-4.4' – methylene diphenyl diisocyanate

Long-term value: 110 mg/m³, 25 ppm

Skin

7440-47-3 chromium

PEL (USA) Ceiling limit value: 0.2 mg/m³, 0.02 ppm

REL (USA) Long-term value: 0.05 mg/m³, 0.005 ppm

Ceiling limit value: 0.2* mg/m³, 0.02* ppm

*10 - min

TVL (USA) Long-term value: 0.051 mg/m³, 0.005 ppm

Additional information:

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

Personal Protection Equipment:
General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Avoid contact with the eyes and skin

Avoid breathing mist, vapors or spray

Wash hands before breaks and at the end of work

Store protective clothing separately

Engineering controls: No relevant information available

Breathing Equipment:

In case of brief exposure or low pollution use respiratory filter device.

In case of intense 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.

Launder contaminated clothing before reuse.

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.

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

Form	Liquid
Color	Dark Brown
Odor	Slight odor
Odor Threshold	Not determined
pH value	Not Determined
Melting point/Melting range	Not Determined
Boiling point/Boiling range	200° C (392° F)
Flash point	198° C (388.4°F)
Flammability (solid, gas)	Not applicable
Auto-ignition temperature	Product is not self-igniting
Decomposition temperature	Not Determined
Danger of explosion	Product is not explosive.

SAFETY DATA SHEET

Explosion limits	
Lower	Not Determined
Upper	Not Determined
Oxidizing properties	
Not Determined	
Vapor pressure	
Not Determined	
Density at 20° C (68°F)	
1.15153 g/cm ³ , (9.60952 lbs/gal)	
Relative density	Not Determined
Vapor density	Not Determined
Evaporation rate	
Not Determined	
Solubility in / Miscibility with Water	
Not miscible or difficult to mix	
Partition coefficient (n-octanol/water)	
Not Determined	
Viscosity	
Dynamic	Not Determined
Kinematic	Not Determined
Solvent Content:	
VOC content:	0.00%
	0.0 g/l (0.00 lb/gal)
Other information	
No relevant information available	

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

Reactivity: No relevant information available

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.

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 4,796 mg/kg (mouse)

Inhalative LD50 11.4 mg/l

101-68-4.4' – methylene diphenyl diisocyanate

Oral LD50 2,200 mg/kg (mouse)

Primary irritant effect:

On the skin:

Irritant to skin and mucous membranes

On the eyes:

Irritating effect

Sensitization:

Sensitization possible through inhalation

Sensitization possible through skin contact

Additional toxicological information:

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

Harmful

Irritant

IARC (International Agency for Research on Cancer):

101-68-8 4.4' methylene diphenyl diisocyanate

9016-87-9 diphenylmethane diisocyanate, isomers and homologues

NTP (National Toxicology Program):

None of the ingredients are listed

OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed

Probable route(s) of exposure:

SAFETY DATA SHEET

Eye contact

Skin contact

Acute effects (acute toxicity, irritation and corrosivity)

Harmful if swallowed

May be harmful in contact with skin

Irritating to eyes and skin

Repeated does toxicity:

May cause sensitization by skin contact

Germ cell mutagenicity:

Based on available data, the classification criteria are not met

Carcinogenicity:

Based on available data, the classification criteria are not met

Reproductive toxicity:

Based on available data, the classification criteria are not met

STOT - single exposure:

Based on available data, the classification criteria are not met

STOT – repeated exposure:

Based on available data, the classification criteria are not met

Aspiration hazard:

Based on available data, the classification criteria are not met

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

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:

Not known to be hazardous to 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, ADN, IMDG, IATA not regulated

UN, proper shipping name

DOT, ADN, IMDG, IATA not recognized

Transportation hazard class(es)

DOT, ADN, IMDG, IATA

Class not recognized

Packing group

DOT, IMDG, IATA not recognized

Environmental hazards

not applicable

SAFETY DATA SHEET

Contaminated work clothing must not be allowed out of the workplace
 Wear protective gloves/protective clothing/eye protection/face protection
 {In case in inadequate ventilation} wear respiratory 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.
 IF exposed or concerned: Get medical advice/attention
 Call a poison center/doctor if you feel unwell
 Specific treatment (see on this label)
 Get medical advice/treatment if you feel unwell
 Take off all contaminated clothing and wash it before reuse
 If skin irritation persists: Get medical advice/attention
 If eye irritation persists, Get medical advice/attention
 If experiencing respiratory symptoms: Call poison center/doctor
 Wash contaminated clothing before reuse
 Store in well-ventilated place. Keep container completely 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
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