

Safety Data Sheet

Printing date 02/08/2017

Version Number 1.0

Reviewed on 02/08/2017

1 Identification

Product identifier

Trade name: Denefoam 200 Part A

SDS ID Number: 2405

Relevant identified uses of the substance or mixture, and uses advised against
Specialty construction product. Not intended for other uses

Details of the supplier of the safety data sheet

Manufacturer/Supplier:
GCP Applied Technologies
62 Whittemore Avenue
Cambridge, MA 02140 USA

GCP Canada, Inc.
294 Clements Road W.
Ajax, Ontario L1S 3C6 Canada

Information department:

Environmental Health & Safety
USA: +1-617-876-1400 (24 hours)
+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts
CAN: 1-905-683-8561 (24 hours)
Email address: msds.gcp@gcpat.com

Transport Emergency: Chemtrec +1-800-424-9300 (24 hours)

2 Hazard(s) identification

Classification of the substance or mixture

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.

Label elements:

Hazard pictograms



GHS07 GHS08

Danger

Hazard statements

Harmful if inhaled.
Causes skin irritation.

Safety Data Sheet

Printing date 02/08/2017

Version Number 1.0

Reviewed on 02/08/2017

Trade name: *Denefoam 200 Part A*

(Cont. from page 1)

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

Avoid breathing dust/fume/gas/mist/vapors/spray

[In case of inadequate ventilation] wear respiratory protection.

Wear 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 water.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

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

IF exposed or concerned: Get medical advice/attention.

NFPA ratings (scale 0 - 4)

Health = 2

Fire = 1

Reactivity = 1

HMIS-ratings (scale 0 - 4)

Health = *2

Flammability = 1

Reactivity = 1

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

PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients**Chemical characterization: Mixture****Description:** Mixture of the hazardous substance(s) listed below with additional nonhazardous ingredients.**Hazardous components:**

9016-87-9	Diphenylmethanediisocyanate, isomers and homologues	50-100%
811-97-2	1,1,1,2-tetrafluoroethane	5.0-10.0%
5873-54-1	Diphenylmethane-2,4'-diisocyanate	2.0-5.0%
101-68-8	Diphenylmethane-4,4'-di-isocyanate	0.1-1.0%

Additional information: Non-hazardous ingredients may be listed in Section 15; Right-To-Know disclosure.**4 First-aid measures****Description of first aid measures****General information:** Get medical advice/attention if you feel unwell.**After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact:

Immediately wash contaminated skin with soap or mild detergent and water. If this chemical soaks clothing, immediately remove clothing and wash skin.

(Cont. on page 3)

USGHS

Trade name: *Denefoam 200 Part A*

(Cont. from page 2)

After eye contact: Rinse cautiously with water for several minutes.

After swallowing:

Rinse mouth.

Do NOT induce vomiting.

Information for doctor:

Most important symptoms and effects, both acute and delayed Irritating to eyes.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

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

Additional information

Heating of container(s) will cause pressure rise with risk of bursting and subsequent explosion (BLEVE).

Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Methods and material for containment and cleaning up:

Contain and/or absorb spill with inert material (i.e. sand, vermiculite) then place in a suitable container.

Sweep up spilled product into receptacles.

Dispose contaminated material as waste according to section 13 of the SDS.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling

Prevent formation of aerosols.

Avoid contact with skin.

Avoid contact with eyes.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Information about storage in one common storage facility: No special measures required.

Further information about storage conditions: Keep receptacle tightly sealed.

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

Trade name: *Denefoam 200 Part A*

(Cont. from page 3)

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:

811-97-2 1,1,1,2-tetrafluoroethane

WEEL (USA) Long-term value: 1000 ppm

7727-37-9 nitrogen

TLV (USA) withdrawn TLV, see App. F; simple asphyxiant

101-68-8 Diphenylmethane-4,4'-di-isocyanate

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

TLV (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.

Exposure controls

Personal protective equipment:

General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.

Breathing equipment:

Control exposure to ingredients with workplace control parameters if mentioned above. If no ingredients are listed, respiratory protection is generally not required.

If exposure limits are listed and may be exceeded, use approved respiratory protective equipment and filter type appropriate for the listed ingredients. (NIOSH, CEN, etc.).

Due to the presence of isocyanate, supplied air respirators must be worn whenever the product is applied in poorly ventilated areas unless local exhaust will maintain exposures below acceptable limits. A chemical cartridge respirator with organic vapour cartridge is required when local exhaust is unavailable or inadequate to control exposures below required limits. When supplied-air respirators are not available or use is not practical, an air-purifying respirator may be an acceptable alternative if the recommendations below are followed:

Use of fans to improve air circulation and general ventilation or exhaust ventilation to remove MDI vapours when working in confined spaces.

The use of an air-purifying respirator fitted with organic vapour cartridge and a well managed cartridge change schedule. Due to the low exposure limits and poor odour warning properties, cartridges should be replaced on a daily basis at a minimum.

To complement the above, a viable isocyanate measurement system should be used to monitor workplace levels.

Protection of hands: Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Material of gloves Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Eye protection:



Safety glasses with side shield protection.

Safety glasses with side shields should be worn to prevent contact due to splashing. Under high vapor mist concentrations, tightly sealed goggles should be worn.



A face shield should also be worn if there is potential exposure to splash or spray.

Body protection:

Use personal protective equipment as required.

(Cont. on page 5)

USGHS

Safety Data Sheet

Printing date 02/08/2017

Version Number 1.0

Reviewed on 02/08/2017

Trade name: *Denefoam 200 Part A*

(Cont. from page 4)

Take off contaminated clothing.

9 Physical and chemical properties**Information on basic physical and chemical properties****General Information****Appearance:**

Form:	Liquid
Color:	Dark brown
Odor:	Characteristic
Odor threshold:	Not determined.

pH-value (~): Not determined.

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	218 °C (424 °F)

Flammability (solid, gaseous): Not applicable.

Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.
VOC Content (max):	Not determined.

Vapor pressure:	Not determined.
Density: (~) at 20 °C (68 °F)	1.2 g/cm ³ (10.014 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.
Molecular weight	Not applicable.

Other information No further relevant information available.

10 Stability and reactivity

Reactivity Stable under normal conditions.

Chemical stability

Thermal decomposition: No decomposition if used according to specifications.

Possibility of hazardous reactions Hazardous polymerization may occur.

Conditions to avoid Keep away from heat sources.

Incompatible materials:

Alcohol.

Amines, alkalines

(Cont. on page 6)

USGHS

Safety Data Sheet

Printing date 02/08/2017

Version Number 1.0

Reviewed on 02/08/2017

Trade name: *Denefoam 200 Part A*

(Cont. from page 5)

Water and bases.

Hazardous decomposition products: Carbon monoxide and carbon dioxide**Additional information:** See section 7 for information on handling, storage and conditions to be avoided.**11 Toxicological information****Delayed and immediate effects and chronic effects from short or long term exposure**

May cause damage to organs through prolonged or repeated exposure.

Information on toxicological effects**Acute toxicity:****LD/LC50 values relevant for classification:****9016-87-9 Diphenylmethanediisocyanate, isomers and homologues**

Oral	LD50	10000 mg/kg (rat)
Dermal	LD50	9000 mg/kg (rat)
Inhalation	LC50, 4h	490 mg/m ³ (rat) NTIS** National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. Volume(issue)/page/year: OTS0555284 RTECS Ref. - TR0350000

101-68-8 Diphenylmethane-4,4'-di-isocyanate

Oral	LD50	> 10000 mg/kg (rat)
Dermal	LD50	> 9400 mg/kg (rabbit)
Inhalation	LC50, 4h	0.49 mg/l (rat)
	LC50	0.00224 mg/m ³ (rat)

Primary irritant effect:**on the skin:** Causes skin irritation.**on the eye:** Causes serious eye irritation.**inhalation:**

Harmful if inhaled.

Causes damage to organs.

Ingestion: May cause damage to organs through prolonged or repeated exposure.**Sensitization:**

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

May cause an allergic skin reaction.

Additional toxicological information: Suspected of causing cancer.**Carcinogenic categories****IARC (International Agency for Research on Cancer) Human Carcinogenicity:
Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable**

9016-87-9	Diphenylmethanediisocyanate, isomers and homologues	3
101-68-8	Diphenylmethane-4,4'-di-isocyanate	3

NTP (National Toxicology Program)**K–Known to be carcinogenic, R–May reasonably be anticipated to be carcinogenic**

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Trade name: *Denefoam 200 Part A*

(Cont. from page 6)

12 Ecological information**Toxicity**

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.**Behavior in environmental systems:****Bioaccumulative potential** No further relevant information available.**Mobility in soil** No further relevant information available.**Additional ecological information:****General notes:** Not known to be hazardous to water.**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**Other adverse effects** No further relevant information available.**13 Disposal considerations****Disposal methods:** Comply with Federal, State and local regulations.**Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:**Recommendation:** Disposal must be made according to official regulations.**14 Transport information****UN-Number**

DOT, IMDG, IATA UN1058

UN proper shipping nameDOT Liquefied gases
IMDG, IATA LIQUEFIED GASES**Transport hazard class(es)**

DOT



Class

2.2

(Cont. on page 8)

USGHS

Safety Data Sheet

Printing date 02/08/2017

Version Number 1.0

Reviewed on 02/08/2017

Trade name: *Denefoam 200 Part A*

(Cont. from page 7)

IMDG, IATA



Class 2.2

Environmental hazards:

Marine pollutant: No

Special precautions for user Not applicable.

EMS Number: F-C,S-V

UN "Model Regulation": UN1058, Liquefied gases, 2.2

15 Regulatory information

SARA (Superfund Amendments and Reauthorization Act)**Section 302/304 (extremely hazardous substances):**

None of the ingredients is listed.

Section 313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

9016-87-9	Diphenylmethanediisocyanate, isomers and homologues	84.0%
-----------	---	-------

SARA Section 312/Tier I & II Hazard Categories:

Health Hazard - Carcinogenicity
 Health Hazard - Acute toxicity (any route of exposure)
 Health Hazard - Skin Corrosion or Irritation
 Health Hazard - Respiratory or Skin Sensitization
 Health Hazard - Serious eye damage or eye irritation
 Health Hazard - Specific target organ toxicity (single or repeated exposure)

North America Chemical Inventory Status**TSCA (Toxic Substances Control Act - United States):**

All ingredients are listed or exempt from listing unless otherwise noted below.

CEPA (Canadian DSL):

All ingredients are listed or exempt from listing unless otherwise noted below.

Right to Know Ingredient Disclosure:

7727-37-9 | nitrogen

California Proposition 65**Chemicals known to cause cancer:**

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Carcinogenicity Categories**EPA (Environmental Protection Agency)**

9016-87-9	Diphenylmethanediisocyanate, isomers and homologues	CBD
101-68-8	Diphenylmethane-4,4'-di-isocyanate	D, CBD

TLV-ACGIH (THE American Conference of Governmental Industrial Hygienists)**Human Carcinogen - A1 Confirmed, A2 Suspected, A3 Unknown Relevance, A4 Not Classifiable**

None of the ingredients is listed.

(Cont. on page 9)

USGHS

Safety Data Sheet

Printing date 02/08/2017

Version Number 1.0

Reviewed on 02/08/2017

Trade name: *Denefoam 200 Part A*

(Cont. from page 8)

NIOSH-Cancer (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

Volatile Organic Compounds (VOC) reported per the Emission Standards.

If no g/L value is provided this product is not subject to above standard.

16 Other information

The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection.

Department issuing SDS:

GCP Applied Technologies

62 Whittemore Avenue

Cambridge, MA 02140 USA

USA: +1-617-876-1400 (24 hours)

+1-800-354-5414

Date of preparation / last revision 02/08/2017 / -**The first date of preparation** 04/03/2015**Number of revision times and the latest revision date** 1.0 / 02/08/2017

USGHS