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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Identity U 283C
Alternate Names U 283C

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended useSee Technical Data Sheet.Application MethodSee Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name STABOND CORPORATION

1722 W. 139th Street, GARDENA CA. 90249

Emergency

24 hour Emergency Telephone No. Chemtrec CCN 20994

24 hour emergency phone # 800 424 9300

Customer Service: STABOND CORPORATION 310 380 6168

2. Hazard identification of the product

2.1. Classification of the substance or mixture

Acute Tox. 4;H332 Harmful if inhaled.
Skin Irrit. 2;H315 Causes skin irritation.

Eye Irrit. 2;H319 Causes serious eye irritation.

Skin Sens. 1;H317 May cause an allergic skin reaction.

Resp. Sens. 1;H334 May cause allergy or asthma symptoms of breathing difficulties if inhaled.

Carc. 2;H351 Suspected of causing cancer. STOT SE 3;H335 May cause respiratory irritation.

STOT RE 2;H373 May cause damage to organs through prolonged or repeated exposure. Specific Target

Organs: (Not Available)

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Danger

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H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

[Prevention]:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P308+313 IF exposed or concerned: Get medical advice / attention.

P314 Get Medical advice / attention if you feel unwell.

P321 Specific treatment (see information on this label).

P333+313 If skin irritation or a rash occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P341 If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P342+311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor / physician.

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

[Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

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3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes	
Isocyanic acid, polymethylenepoly- phenylene ester, polymer with methyloxirane polymer with oxirane ether with 1,2,3-pro CAS Number: 0058228-05-0	methyloxirane polymer with oxirane ether Skin Irrit. 2;H315 Skin Sens. 1;H317		[1]	
Diphenylmethanediisocyanate CAS Number: 0000101-68-8	10 - 25	Carc. 2;H351 Acute tox. 4;H332 STOT RE 2;H373 Eye Irrit. 2;H319 STOT SE 3;H335 Skin Irrit. 2;H315 Resp. Sens. 1;H334 Skin Sens. 1;H317	[1][2]	
Polymeric Diphenylmethane Diisocyanate CAS Number: 0009016-87-9	1.0 - 10	Acute Tox. 4;H332 Skin Irrit. 2;H315 Eye Irrit. 2;H319 STOT SE 3;H335 Skin Sens. 1;H317 Resp. Sens. 1;H334	[1]	
Diphenylmethane diisocyanate, mixed isomers CAS Number: 0026447-40-5	1.0 - 10	Carc. 2;H351 Acute tox. 4;H332 STOT RE 2;H373 Eye Irrit. 2;H319 STOT SE 3;H335 Skin Irrit. 2;H315 Resp. Sens. 1;H334 Skin Sens. 1;H317	[1]	

^[1] Substance classified with a health or environmental hazard.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give

artificial respiration. If unconscious place in the recovery position and obtain immediate

medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and

seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a

recognized skin cleanser.

^[2] Substance with a workplace exposure limit.

^[3] PBT-substance or vPvB-substance.

^{*}The full texts of the phrases are shown in Section 16.

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Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting. If

vomiting should occur spontaneously keep victims head below knees to prevent aspiration

into the lungs.

4.2. Most important symptoms and effects, both acute and delayed

Overview Irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion.

Vapor and aerosols can irritate eyes, nose and respiratory passages. Severe overexposure

can cause fluid buildup in lungs. MDI vapor can cause respiratory sensitization with

asthma-like symptoms.

Possible cancer hazard. Contains an ingredient which may cause cancer based on animal

data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on

duration and level of exposure. See section 2 for further details.

Inhalation Harmful if inhaled. May cause allergy or asthma symptoms of breathing difficulties if

inhaled.

Eyes Causes serious eye irritation.

Skin May cause an allergic skin reaction. Causes skin irritation.

5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray. Do not use; water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Burning may produce fumes of carbon dioxide, carbon monoxide, hydrogen cyanide, phenols and nitrous oxides.

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

5.3. Advice for fire-fighters

SPECIAL FIREFIGHTING PROCEDURES

Firefighters must wear positive pressure self-contained breathing apparatus and full protective clothing to protect against isocyanate vapors. IF WATER IS USED, USE LARGE AMOUNTS, AS WATER WILL REACT VIGOROUSLY WITH THE HOT MATERIAL.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Down-wind personnel must be evacuated. Do not reseal contaminated containers as pressure build-up may rupture them. Water contamination will produce Carbon dioxide.

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water ways.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove sources of ignition, do not turn lights or unprotected electrical equipment on or off. In case of a major spill or spillage in a confined space evacuate the area and check that solvent vapor levels are below the Lower Explosive Limit before re-entering.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Major: Evacuate and ventilate spill area. Prevent entry into water system. Wear full protective equipment.

Minor: Absorb with inert absorbent material.

7. Handling and storage

7.1. Precautions for safe handling

Store indoors at 50-90 deg F. in original, unopened containers. Protect from atmospheric moisture. Replace outage with inert dry gas as nitrogen.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Precautions should be taken to minimize exposure to atmospheric humidity or water as carbon dioxide may be formed which, in closed containers can result in pressurization. Care should be taken when re-opening partly used containers.

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.

Examination of lung function should be carried out on a regular basis on persons applying this preparation.

Incompatible materials: Water, acid, base, alcohols, metal compounds, surface active materials

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

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8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000101-68-8 Diphenylmethanediisocyanate	Diphenylmethanediisocyanate	OSHA	C 0.2 mg/m3 (0.02 ppm)
		ACGIH	TWA: 0.005 ppm Ceiling: 0.01 ppmSkin, S
	NIOSH	TWA 0.05 mg/m3 (0.005 ppm) C 0.2 mg/m3 (0.020 ppm) [10-minute]	
	Supplier	No Established Limit	
0009016-87-9	Polymeric Diphenylmethane Diisocyanate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0026447-40-5 Diphenylmethane diisocyanate, mixed isomers	OSHA	No Established Limit	
	ACGIH	No Established Limit	
	NIOSH	No Established Limit	
		Supplier	No Established Limit
phenylene ester, polym	Isocyanic acid, polymethylenepoly-	OSHA	No Established Limit
	phenylene ester, polymer with methyloxirane polymer with oxirane ether with 1,2,3-pro	ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value			
0000101-68-8	Diphenylmethanediisocyanate	OSHA	Select Carcinogen: No			
			Known: No; Suspected: No			
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;			
0009016-87-9			Select Carcinogen: No			
Diisocyanate	Diisocyanate	NTP	Known: No; Suspected: No			
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;			
		OSHA	Select Carcinogen: No			
mixed isomers	NTP	Known: No; Suspected: No				
	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;				
0058228-05-0 Isocyanic acid, polymethylenepoly-		OSHA	Select Carcinogen: No			
	phenylene ester, polymer with methyloxirane polymer with oxirane	NTP	Known: No; Suspected: No			
	ether with 1,2,3-pro	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;			

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8.2. Exposure controls

Respiratory Atmospheric levels should be maintained below the exposure guideline. Use an approved,

full-face, supplied air respirator or a NIOSH approved positive pressure, self-contained

breathing apparatus if these levels are exceeded.

Eyes Safety glasses or chemical goggles should be worn.

Skin Overalls which cover the body, arms and legs should be worn. Skin should not be exposed.

All parts of the body should be washed after contact. Use neoprene, vinyl or natural rubber

gloves.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the

use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits

suitable respiratory protection must be worn.

Other Work Practices Eye wash fountain or bottles. Solvent insoluble barrier hand cream. Use good personal

hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly

remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance Translucent amber Liquid

Odor Not Measured
Odor threshold Not Measured
pH Not Measured
Melting point / freezing point Not Measured

Initial boiling point and boiling range DECOMPOSES @ 646 F

Flash Point > 350 F COC

Evaporation rate (Ether = 1) SLOWER THAN ETHER

Flammability (solid, gas) Not Applicable

Upper/lower flammability or explosive limits Lower Explosive Limit: NA

Upper Explosive Limit: NA

Vapor pressure (Pa) Not Measured

Vapor Density HEAVIER THAN AIR

Specific Gravity 1.1 (H2O=1)

Solubility in Water Nil

Partition coefficient n-octanol/water (Log Kow)

Auto-ignition temperature

Not Measured

Not Measured

Not Measured

Viscosity (cSt)

Not Measured

Not Measured

Not Measured

Not Measured

Solubility in Water REACTS WITH WATER

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9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

MAY OCCUR In presence of strong bases, water or temperatures over 160 C. Water contamination gives off CO2, & may rupture containers

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Keep away from all sources of ignition or heat.

10.5. Incompatible materials

Water, acid, base, alcohols, metal compounds, surface active materials

10.6. Hazardous decomposition products

Burning may produce fumes of carbon dioxide, carbon monoxide, hydrogen cyanide, phenols and nitrous oxides.

11. Toxicological information

Acute toxicity

Based on the properties of the isocyanate content of this product, respiratory exposure may cause acute irritation and/or sensitisation of the respiratory system resulting in asthmatic symptoms, wheezing and a tightness of the chest. Sensitised persons may subsequently show asthmatic symptoms when exposed to airborne concentrations of isocyanates well below the occupational exposure limit. Repeated exposure may lead to permanent respiratory disability.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Isocyanic acid, polymethylenepoly- phenylene ester, polymer with methyloxirane polymer with oxirane ether with 1,2,3-pro - (58228-05-0)	No data available	No data available	No data available	No data available	No data available
Diphenylmethanediisocyanate - (101-68-8)	4,700.00, Rat - Category: 5	No data available	No data available	No data available	No data available
Polymeric Diphenylmethane Diisocyanate - (9016-87-9)	49,000.00, Rat - Category: NA	9,400.00, Rabbit - Category: NA	No data available	No data available	No data available
Diphenylmethane diisocyanate, mixed isomers - (26447-40-5)	6,400.00, Rat - Category: NA	6,200.00, Rabbit - Category: NA	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

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Classification	Category	Hazard Description
Acute toxicity (oral)		Not Applicable
Acute toxicity (dermal)		Not Applicable
Acute toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	1	May cause allergy or asthma symptoms of breathing difficulties if inhaled.
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity		Not Applicable
Carcinogenicity	2	Suspected of causing cancer.
Reproductive toxicity		Not Applicable
STOT-single exposure		Not Applicable
STOT-repeated exposure	2	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard		Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Isocyanic acid, polymethylenepoly- phenylene ester, polymer with methyloxirane polymer with oxirane ether with 1,2,3-pro - (58228-05-0)	Not Available	Not Available	Not Available
Diphenylmethanediisocyanate - (101-68-8)	Not Available	129.70, Daphnia magna	Not Available
Polymeric Diphenylmethane Diisocyanate - (9016-87-9)	Not Available	Not Available	Not Available
Diphenylmethane diisocyanate, mixed isomers - (26447-40-5)	Not Available	1,000.00, Daphnia magna	4,300.00 (72 hr), Chlorella vulgaris

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

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12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

Note: Single containers less than 5000 lbs. are not DOT regulated.

DOT (Domestic Surface IMO / IMDG (Ocean ICAO/IATA Transportation) Transportation)

14.1. UN number UN3082 UN3082 UN3082

14.1. 014 Hulliber 01/30/02 01/30/02 01/30/02

14.2. UN proper UN3082, Environmentally Environmentally hazardous Shipping name hazardous substances, liquid, n.o.s., substances, liquid, n.o.s., (2) the substances of the

n.o.s., (Diphenylmethanediisocyanate) (Diphenylmethanediisocyanate) (Diphenylmethanediisocyanate),

9, 111

14.3. Transport DOT Hazard Class: 9 IMDG: 9 Air Class: 9

hazard class(es) DOT Label: 9 Sub Class: Not Applicable

14.4. Packing ||| |||

group

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected

regulations are represented.

Toxic Substance All Control Act (TSCA) Inv

All components of this material are either listed or exempt from listing on the TSCA

Inventory.

WHMIS Classification D2A

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US EPA Tier II Hazards Fire: No

Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): Yes
Delayed (Chronic): Yes

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EPCRA 311/312 Chemicals and RQs (lbs):

Diphenylmethanediisocyanate (5,000.00)

EPCRA 302 Extremely Hazardous:

(No Product Ingredients Listed)

EPCRA 313 Toxic Chemicals:

Diphenylmethanediisocyanate

Polymeric Diphenylmethane Diisocyanate

Proposition 65 - Carcinogens (>0.0%):

(No Product Ingredients Listed)

Proposition 65 - Developmental Toxins (>0.0%):

(No Product Ingredients Listed)

Proposition 65 - Female Repro Toxins (>0.0%):

(No Product Ingredients Listed)

Proposition 65 - Male Repro Toxins (>0.0%):

(No Product Ingredients Listed)

N.J. RTK Substances (>1%):

Diphenylmethanediisocyanate

Polymeric Diphenylmethane Diisocyanate

Penn RTK Substances (>1%):

Diphenylmethanediisocyanate

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

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