



Safety Data Sheet

prepared to UN GHS Revision 3

1. Identification of the Substance/Mixture and the Company/Undertaking

1.1 Product Identifier	0516-0024	Revision Date:	09/05/2018
Product Name:	Carbothane 1345	Supersedes Date:	30/11/2015
1.2 Relevant identified uses of the substance or mixture and uses advised against	Monocomponent industrial coating - Industrial use.		
1.3 Details of the supplier of the safety data sheet			
Importer:	Importer		
Manufacturer:	StonCor Africa (Pty.) Ltd. 8 Cresset Road Midrand Industrial Park, Chloorkop P.O. Box 2205 2001, Johannesburg South Africa		
	Regulatory / Technical Information: +27 11 254 5500		
Datasheet Produced by:	Maritz, Rory - ehs@stoncor.com		
1.4 Emergency telephone number:	CHEMTREC 1-800-424-9300 (Inside US) CHEMTREC +1 703 5273887 (Outside US)		

2. Hazard Identification

2.1 Classification of the substance or mixture

Acute Toxicity, Inhalation, category 4
 Hazardous to the aquatic environment, Chronic, category 3
 Carcinogenicity, category 2
 Eye Irritation, category 2
 Flammable Liquid, category 3
 Respiratory Sensitizer, category 1
 STOT, repeated exposure, category 2
 STOT, single exposure, category 3, RTI
 Skin Irritation, category 2
 Skin Sensitizer, category 1

2.2 Label elements

Symbol(s) of Product



Signal Word

Danger

Named Chemicals on Label

Tosyl isocyanate, isocyanic acid, polymethylenepolyphenylene ester, oligomeric mdi: oligomeric reaction products of formaldehyde with aniline and phosgene, prepolymer based on aromatic isocyanate

HAZARD STATEMENTS

Flammable Liquid, category 3	H226	Flammable liquid and vapour.
Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
Respiratory Sensitizer, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment, Chronic, category 3	H412	Harmful to aquatic life with long lasting effects.

PRECAUTION PHRASES

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P285	In case of inadequate ventilation wear respiratory protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P308+313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
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.
P403+233	Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

3. Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>%</u>
67815-87-6	prepolymer based on aromatic isocyanate	10-25
64742-94-5	Solvent naphtha (petroleum), heavy arom.	10-25
1309-37-1	red iron oxide	10-25
9016-87-9	isocyanic acid, polymethylenepolyphenylene ester	10-25
7727-43-7	barium sulfate	2.5-10
32055-14-4	oligomeric mdi: oligomeric reaction products of formaldehyde with aniline and phosgene	2.5-10
64742-95-6	Solvent naphtha (petroleum), light arom.	2.5-10
4083-64-1	Tosyl isocyanate	1.0-2.5
64742-88-7	Solvent naphtha (petroleum), medium aliph.	0.1-1.0

<u>CAS-No.</u>	<u>GHS Symbols</u>	<u>GHS Hazard Statements</u>	<u>M-Factors</u>
67815-87-6	GHS08	H317-334-412	0
64742-94-5	GHS08	H304	0
1309-37-1			0
9016-87-9	GHS07-GHS08	H315-317-319-332-334-335-351-373	0
7727-43-7			0
32055-14-4	GHS07-GHS08	H315-317-319-332-334-335-351-373	0
64742-95-6	GHS08-GHS09	H304-411	0
4083-64-1	GHS07-GHS08	H315-319-334-335	0
64742-88-7	GHS08	H304	0

Additional Information: The text for GHS Hazard Statements shown above (if any) is given in Section 16.

4. First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice.

AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure.

AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

No Information

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

5. Fire-fighting Measures

5.1 Extinguishing Media:

Alcohol Foam, Carbon Dioxide, Dry Chemical, Foam, Water Fog

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

Flash back possible over considerable distance. In the event of fire, wear self-contained breathing apparatus. Do not use a solid water stream as it may scatter and spread fire. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Remove all sources of ignition.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

7. Handling and Storage

7.1 Precautions for safe handling

INSTRUCTIONS FOR SAFE HANDLING: Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Vapours may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Electrical equipment should be protected to the appropriate standard. Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Use only in area provided with appropriate exhaust ventilation. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Wear personal protective equipment. Do not breathe vapours or spray mist. Use only explosion-proof equipment. Keep away from sources of ignition - No smoking.

PROTECTION AND HYGIENE MEASURES: Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Direct sources of heat.

STORAGE CONDITIONS: Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

7.3 Specific end use(s)

No specific advice for end use available.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (EU)

<u>Name</u>	<u>CAS-No.</u>	<u>LTEL ppm</u>	<u>STEL ppm</u>	<u>STEL mg/m3</u>	<u>LTEL mg/m3</u>
prepolymer based on aromatic isocyanate	67815-87-6			0.07	0.02
Solvent naphtha (petroleum), heavy arom.	64742-94-5				
red iron oxide	1309-37-1				
isocyanic acid, polymethylenepolyphenylene ester	9016-87-9				
barium sulfate	7727-43-7				
oligomeric mdi: oligomeric reaction products of formaldehyde with analine and phosgene	32055-14-4				
Solvent naphtha (petroleum), light arom.	64742-95-6				
Tosyl isocyanate	4083-64-1				
Solvent naphtha (petroleum), medium aliph.	64742-88-7				

<u>Name</u>	<u>CAS-No.</u>	<u>OEL Note</u>
prepolymer based on aromatic isocyanate	67815-87-6	
Solvent naphtha (petroleum), heavy arom.	64742-94-5	
red iron oxide	1309-37-1	
isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	
barium sulfate	7727-43-7	
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Tosyl isocyanate	4083-64-1	
Solvent naphtha (petroleum), medium aliph.	64742-88-7	

FURTHER INFORMATION: Refer to the regulatory exposure limits for the workforce enforced in each country.

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: Respirator with a vapor filter.

EYE PROTECTION: Tightly fitting safety goggles.

HAND PROTECTION: Rubber or plastic gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Long sleeved clothing. Remove and wash contaminated clothing before re-use.

OTHER PROTECTIVE EQUIPMENT: No Information

ENGINEERING CONTROLS: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Viscous Liquid, coloured
Physical State	Liquid
Odor	Solvent
Odor threshold	Not determined
pH	Not determined
Melting point / freezing point (°C)	Not determined
Boiling point/range (°C)	106 - 149
Flash Point, (°C)	28
Evaporation rate	Slower than ether
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	0.8 - 10.7
Vapour Pressure	Not determined
Vapour density	Heavier than air
Relative density	1.28 - 1.32
Solubility in / Miscibility with water	Insoluble
Partition coefficient: n-octanol/water	Not determined

Auto-ignition temperature (°C)	Not determined
Decomposition temperature (°C)	Not determined
Viscosity	65 - 75 kU
Explosive properties	Not determined
Oxidising properties	Not determined

9.2 Other information

VOC Content g/l:	324
Calculated grams of VOC per liter of coating product as applied.	
Specific Gravity (g/cm3)	1.305

10. Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under recommended storage conditions. Risk of ignition.

10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4 Conditions to avoid

Direct sources of heat.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

11. Toxicological Information

11.1 Information on toxicological effects**Acute Toxicity:**

Oral LD50:	No information
Inhalation LC50:	No information

Irritation: No information available.

Corrosivity: No information available.

Sensitization: No information available.

Repeated dose toxicity: No information available.

Carcinogenicity: This product contains one or more carcinogenic substances. See hazard classification and precautionary statements in Section 2 for further information.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
67815-87-6	prepolymer based on aromatic isocyanate	>5000 mg/kg oral rat		

9016-87-9	isocyanic acid, polymethylenepolyphenylene ester	>10000 mg/kg	>9400 mg/kg	0..49 mg/l (4 h, Aerosol. rat)
32055-14-4	oligomeric mdi: oligimeric reaction products of formaldehyde with analine and phosgene		>9400 mg/kg	
64742-95-6	Solvent naphtha (petroleum), light arom.	4700 mg/kg, oral, rat	>2000 mg/kg	3670 ppm/8 hours, rat, inhalation
4083-64-1	Tosyl isocyanate	2600 mg/kg oral, rat		
64742-88-7	Solvent naphtha (petroleum), medium aliph.	>2000 mg/kg, oral, rat		

Additional Information:

This product may contain Titanium Dioxide, which is listed by IARC as possibly carcinogenic to humans (Group 2B). This listing is based on inadequate evidence of carcinogenicity in humans and sufficient evidence in experimental animals. This classification is relevant when exposed to titanium dioxide in dust or powder form only, including cured product that is subject to sanding, grinding, cutting, or other surface preparation activities.

12. Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia):	No information
IC50 72hr (Algae):	No information
LC50 96hr (fish):	No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment: The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

12.6 Other adverse effects: No information

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
67815-87-6	prepolymer based on aromatic isocyanate	No information	No information	No information
64742-94-5	Solvent naphtha (petroleum), heavy arom.	No information	No information	
1309-37-1	red iron oxide	No information	No information	
9016-87-9	isocyanic acid, polymethylenepolyphenylene ester	No information	1640 mg/l	>1000 mg/l
7727-43-7	barium sulfate	No information	No information	
32055-14-4	oligomeric mdi: oligimeric reaction products of formaldehyde with analine and phosgene	No information	No information	No information
64742-95-6	Solvent naphtha (petroleum), light arom.	>1 - 10 mg/l	>1 - 10 mg/l	>10-100 mg/l
4083-64-1	Tosyl isocyanate	No information	No information	
64742-88-7	Solvent naphtha (petroleum), medium aliph.	No information	No information	

13. Disposal Considerations

13.1 WASTE TREATMENT METHODS: Do not burn, or use a cutting torch on, the empty drum. If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

14.1	UN number	UN 1263
14.2	UN proper shipping name	Paint
	Technical name	Not applicable
14.3	Transport hazard class(es)	3
	Subsidiary shipping hazard	Not applicable
14.4	Packing group	III
14.5	Environmental hazards	Not applicable
14.6	Special precautions for user	Not applicable
	EmS-No.:	Not applicable
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation for the substance or mixture:

National Regulations:

Denmark Product Registration Number:	Not available
Danish MAL Code:	Not available
Danish MAL Code - Mixture:	Not available
Sweden Product Registration Number:	Not available
Norway Product Registration Number:	Not available
WGK Class:	Not available

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16. Other Information

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma 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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Reasons for revision

Revision Description Changed
 Substance and/or Product Properties Changed in Section(s):
 02 - Hazard Identification
 08 - Exposure Controls/Personal Protection
 11 - Toxicological Information
 12 - Ecological Information
 15 - Regulatory Information
 Substance Hazard Threshold % Changed
 Revision Statement(s) Changed

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark;
 European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;
 European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);
 EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m ³	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container
RTI	Respiratory Tract Irritation
NE	Narcotic Effects

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.