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Safety Data Sheet acc. to OSHA HCS

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Date of PDF Creation 08/14/2024

Reviewed on 08/14/2024

1 Identification

- Product identifier
- · Trade name: Stobicast® HC 1551 X 6.8
- · Application of the substance / the mixture Isocyanate resin
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

STOCKMEIER Urethanes USA, Inc.

20 Columbia Boulevard

Clarksburg, WV 26301-9606

USA

Telephone: (304)-623-7002 Fax: (304)-624-7020

- · Information department: Product Development Department
- · Emergency telephone number:

During Normal Business Hours: 1-304-624-7002

For Chemical Emergency

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: (800) 424-9300 Reference CCN 649199 Outside USA and Canada: +1 (703) 527-3887 Reference CCN 649199

2 Hazard(s) identification

Classification of the substance or mixture



GHS08 Health hazard

Sensitization - Respiratory 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carcinogenicity 2 H351 Suspected of causing cancer.



Acute Toxicity - Inhalation 4 H332 Harmful if inhaled.

Sensitization - Skin 1 H317 May cause an allergic skin reaction.

· Storage:

Store in a well-ventilated place. Keep container tightly closed. In closed containers, there may be a risk of pressure build up due to water contamination (Liberated CO2 Gas). Store locked up.

- · Label elements
- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS07 GHS0

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Trade name: Stobicast® HC 1551 X 6.8

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- · Signal word Danger
- · Hazard-determining components of labeling:

Toluene-diisocyanate (Mixed isomers)

Hazard statements

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

Precautionary statements

Obtain special instructions before use.

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

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

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.

[In case of 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 exposed or concerned: Get medical advice/attention.

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

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

If experiencing respiratory symptoms: Call a poison center/doctor.

Wash contaminated clothing before reuse.

Store locked up.

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

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



Health = 3Fire = 1Reactivity = 1

HMIS-ratings (scale 0 - 4)



Fire = 1 Reactivity = 1

- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- Description:

Modified Toluene Diisocyanate (TDI) Terminated Polyether Prepolymer

Aromatic Isocyanate Prepolymer

Dangerous components:

26471-62-5 Toluene-diisocyanate (Mixed isomers)

5-10%

Additional information: CAS 26471-62-5 is a mixture of TDI isomers CAS 584-84-9 and 91-08-7

4 First-aid measures

- Description of first aid measures
- General information:

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

Diisocyanate vapors or mist at concentrations above the TLV can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat and lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function. Persons with a preexisting, nonspecific bronchial hyper reactivity can respond to concentrations below the (Contd. on page 3)

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TLV with similar symptoms as well as asthmatic attack.

After inhalation:

In case of unconsciousness, place patient stably in side position for transportation.

In case of respiratory failure or breathing irregularities, commence resuscitation or administer oxygen.

If inhaled, remove victim from the immediate area to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.

· After skin contact:

Instantly wash with water and soap and rinse thoroughly. Remove any contaminated clothing. If skin irritation persists, seek medical advice.

For severe exposures, immediately get under safety shower and begin rinsing.

- * After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: Do not induce vomiting; immediately call for medical help.
- Information for doctor:

Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision. Skin: This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the compound. Inhalation: Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate.

Most important symptoms and effects, both acute and delayed

Disocyanate vapors or mist at concentrations above the TLV or PEL can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing chest discomfort, shortness of breath and reduced lung function (breathing obstruction). Persons with a preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the TLV or PEL with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the TLV or PEL may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms (e.g., fever, chills), has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible.

Acute Skin Contact: Causes irritation with symptoms of reddening, itching, and swelling. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove.

Chronic Skin Contact: Prolonged contact can cause reddening, swelling, rash, and, in some cases, skin sensitization. Animal tests and other research indicate that skin contact with diisocyanates can play a role in causing sensitization and respiratory reaction.

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

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture

Can be released in case of fire:

Nitrogen Oxides (NOx)

Carbon Monoxide (CO)

Hydrogen Cyanide (HCN)

· Advice for firefighters

Firefighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and NFPA compliant helmet, hood, boots and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Exposure to heated diisocyanate can be extremely dangerous.

· Protective equipment:

Wear breathing apparatus

Wear full protective suit with self-contained breathing apparatus

See section 8

· Additional information

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

Down-wind personnel must be evacuated. Do not reseal moisture contaminated containers as a chemical reaction generating carbon dioxide gas may occur resulting in an increase of pressure which may rupture the container. Dense smoke is emitted when the product is burned without sufficient oxygen. When using water spray, boil-over may occur when product temperature reaches the boiling point of water and the reaction forming carbon dioxide will be accelerated. Diisocyanate vapors and other gases may be generated by thermal decomposition.

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6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Clean-up should only be performed by trained personnel. Personnel dealing with major spills should wear appropriate protective equipment including, but not limited to, the following items: Gloves, goggles and respiratory protection equipment.

- · Environmental precautions: Keep out of the reach of children.
- · Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Transfer to a waste container. Keep the material damp and exposed to the air in a secure area (CO2-formation!) until completely solidified. The waste can then be disposed of on an approved landfill or a special refuse dump. Ensure adequate ventilation.

In the event of a large spill, treat spill area with decontamination solution. Preparation of decontamination solution: Prepare a mixture of 0.2 - 0.5% liquid detergent and 3 - 8% concentrated ammonium hydroxide in water (5 - 10% sodium carbonate may be substituted for the ammonium hydroxide).

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.

Protective Action Criteria for Chemicals

PAC-1:		
	Toluene-diisocyanate (Mixed isomers)	0.02 ppm
98-88-4	benzoyl chloride	0.3 ppm
PAC-2:		
26471-62-5	Toluene-diisocyanate (Mixed isomers)	0.083 ppm
98-88-4	benzoyl chloride	5 ppm
PAC-3:		
26471-62-5	Toluene-diisocyanate (Mixed isomers)	0.51 ppm
98-88-4	benzoyl chloride	20 ppm

7 Handling and storage

- Handling:
- Precautions for safe handling

Thorough dedusting.

Ensure good ventilation/exhaust at the workplace.

Open and handle receptacle with care.

Keep containers tightly sealed.

Prevent formation of aerosols.

Exhaust ventilation required during spraying or when material is being used at temperatures above 100 degrees F.

Avoid contact with skin, eyes and clothing. Avoid breathing vapor or mist. Wash after handling.

Information about protection against explosions and fires:

Keep respiratory protective device available.

Pay attention to the general rules of internal fire prevention.

- Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles:

Recommended ideal storage temperature range: 59 - 77 degrees F. Product should not be stored below 40 degrees or above 110 degrees F.

Material can increase in viscosity if stored at lower temperatures for an extended period of time.

Information about storage in one common storage facility:

Store away from foodstuffs.

Keep containers tightly closed. Store in cool, dry conditions.

· Further information about storage conditions:

Protect from frost.

Store in dry conditions.

Protect from humidity and water.

Keep container tightly sealed.

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

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see section 7.
- · Control parameters
- Components with limit values that require monitoring at the workplace:

26471-62-5 Toluene-diisocyanate (Mixed isomers)

PEL Ceiling limit value: 0.14 mg/m³, 0.02 ppm

REL LFC

TLV Short-term value: (0.14) NIC-0.021* mg/m³, (0.02) NIC-0.003* ppm Long-term value: (0.036) NIC-0.007* mg/m³, (0.005) NIC-0.001* ppm *(IFV) SEN; NIC-Skin; A3

- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.

Store protective clothing separately. Avoid contact with the eyes and skin.

Gases fumes and aerosols should not be inhaled.

Breathing equipment:

At normal room temperatures, airborne TDI can exceed the ACGIH TLV-TWA; therefore, in inadequately ventilated environments, respiratory protection must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). The type of respiratory protection available includes (1) an atmosphere-supplying respirator such as a self-contained breathing apparatus (SCBA) or a supplied air respirator (SAR) in the positive pressure or continuous flow mode, or (2) an air-purifying respirator (APR). If an APR is selected then (a) the cartridge must be equipped with an end-of-service life indicator (ESLI) certified by NIOSH, ór(b) a change out schedule, based on objective information or data that will ensure that the cartridges are changed out before the end of their service life, must be developed and implemented. The basis for the change out schedule must be described in the written respirator program. Further, if an APR is selected, the airborne diisocyanate concentration must be no greater than 10 times the TLV or PEL. An organic vapor (OV) cartridge is recommended for APR use.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

The following glove types are recommended: neoprene, nitrile rubber, PVC or butyl rubber. Thin, disposable latex gloves should be avoided for repeated or long term handling of the material. Recommended thickness of the glove material: 5 - 6 mil Selection of the glove material should be based on the consideration of penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable 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 can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

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

Eye protection:



Tightly sealed goggles

Body protection: Protective work clothing

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9 Physical and chemical propert	ties
Information on basic physical and cl General Information Appearance:	hemical properties
Form:	Solid
Color:	Light yellow to amber
Odor:	Characteristic
· Odor threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition Melting point/Melting range: Boiling point/Boiling range:	48 °C (118.4 °F) Undetermined.
· Flash point:	>200 °C (>392 °F)
· Flammability (solid, gaseous):	Not determined.
Decomposition temperature:	Not determined.
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits: Lower: Upper:	Not determined. Not determined.
· Vapor pressure:	Not applicable.
Density at 20 °C (68 °F): Relative density Vapor density Evaporation rate	1.16 g/cm³ (9.6802 lbs/gal) Not determined. Not applicable. Not applicable.
Solubility in / Miscibility with Water:	Insoluble, reacts
· Partition coefficient (n-octanol/water): Not determined.
Viscosity: Dynamic at 20 °C (68 °F): Kinematic:	600 mPas Not applicable.
Solvent content: VOC content:	0.00 %
Solids content:	100.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

Reactivity

Contact with moisture, other materials that react with isocyanates, or temperatures above 350 F (177 C), may cause polymerization.

- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions

Exothermic reaction with amines and alcohols

Reacts with water to liberate CO2 gas which may build pressure in closed containers

- Conditions to avoid No further relevant information available.
- Incompatible materials:

Exothermic reaction with amines and alcohols. Reacts with water forming heat, carbon dioxide and insoluble urea. The combined effect of carbon dioxide and heat can produce enough pressure to rupture a closed container.

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· Hazardous decomposition products:

By Fire and High Heat: Carbon Monoxide, Carbon Dioxide, Oxides of Nitrogen and traces of HCN.

11 Toxicological information

- Information on toxicological effects
- · Acute toxicity:

· LD/LC50	values tl	hat are relevant for classification:
26471-62-	5 Toluene	-diisocyanate (Mixed isomers)
Oral	LD50	5,800 mg/kg (rat)
Dermal	LD50	>16,000 mg/kg (rabbit)
Inhalative	LC50/4 h	0.1 mg/l (rat)

- Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- on the eye: 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
Carcinogenic categories

· IARC (Inter	national Agency for Research on Cancer)	
26471-62-5	Toluene-diisocyanate (Mixed isomers)	2B
98-88-4	benzoyl chloride	2A
· NTP (Natio	nal Toxicology Program)	
26471-62-5	Toluene-diisocyanate (Mixed isomers)	R
,	Occupational Safety & Health Administration)	
None of the	ingredients is listed.	

12 Ecological information

·Toxicity

Aquatic toxicity: 26471-62-5 Toluene-diisocyanate (Mixed isomers) EC50 (48 h) | 12.5 mg/l (daphnia) LC50 (96 h) | 164.5 mg/l (Pimephales Promelas)

- · 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:

This product is not miscible with water. Reacts with water at the interface producing CO2 gas and forming a solid and insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (eg. detergents) or by water-soluble solvents. Previous experience demonstrates that polyurea is inert and non-degradable.

Water hazard class 1 (self-assessment): slightly hazardous for water.

- Results of PBT and vPvB assessment
- · PBT: Not applicable.
- vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

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13 Disposal considerations

- · Waste treatment methods
- Recommendation:

Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

- Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

14 Transport information	
· UN-Number · DOT, ADR, IMDG, IATA	UN 2078 UN2206
· UN proper shipping name · DOT · ADR · IMDG, IATA	TOLUNE DIISOCYANATE POLYURETHANE PREPOLYMER Isocyanates, toxic, n.o.s. 2206 ISOCYANATES, TOXIC, N.O.S. ISOCYANATES, TOXIC, N.O.S.
· Transport hazard class(es)	Void
DOT	
TOXIC	
·Class	6.1 Toxic substances
· Label	6.1
· ADR, IMDG, IATA	
· Class · Label	6.1 Toxic substances 6.1
· Packing group · DOT, ADR, IMDG, IATA	Void II
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Stowage Code	Warning: Toxic substances : 60 F-A,S-A E SW1 Protected from sources of heat. SW2 Clear of living quarters.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
· ADR · Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
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· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	100 ml Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
UN "Model Regulation":	UN 2206 ISOCYANATES, TOXIC, N.O.S. 6.1, II

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara

· Section 355 (extremely hazardous substances):	
26471-62-5 Toluene-diisocyanate (Mixed isomers)	
Section 313 (Specific toxic chemical listings):	

Section 313 (Specific toxic chemical listings):

All ingredients are listed.

TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

Hazardous Air Pollutants

None of the ingredients is listed.

Proposition 65

· Chemicals known to cause cancer:

26471-62-5 Toluene-diisocyanate (Mixed isomers)

· 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.

· Cancerogenity categories

EPA (Environmental Protection Agency)		
None of the	ingredients is listed.	
· TLV (Thres	shold Limit Value)	
26471-62-5	Toluene-diisocyanate (Mixed isomers)	(A4)
98-88-4	benzoyl chloride	A4

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

None of the ingredients is listed.

- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS07

HS07 GHS08

- · Signal word Danger
- · Hazard-determining components of labeling:

Toluene-diisocyanate (Mixed isomers)

Hazard statements

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

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H351 Suspected of causing cancer.

Precautionary statements

Obtain special instructions before use.

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

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

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.

[In case of 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 exposed or concerned: Get medical advice/attention.

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

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

If experiencing respiratory symptoms: Call a poison center/doctor.

Wash contaminated clothing before reuse.

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.

16 Other information

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

- · Department issuing SDS: Product Development Department
- · Contact: Product Development Department
- Date of preparation / last revision 08/14/2024 / -
- Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation

IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA)

NPPA. National rife Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit
Acute Toxicity - Inhalation 4: Acute toxicity - Category 4
Sensitization - Respiratory 1: Respiratory sensitisation - Category 1
Sensitization - Skin 1: Skin sensitisation - Category 1
Carcinogenicity 2: Carcinogenicity - Category 2