SAFETY DATA SHEET

Issue Date 09-Dec-2015 **Revision Date** 09-SEP-2026 **Version** 1

1. IDENTIFICATION

Product identifier
Product Name SlipDoctors Tuff Grip Crosslinker (Urethane Catalyst Activator)

Other means of identification
Product Code S-CT-TUFCLPT
UN/ID no. 1866
Synonyms None

Recommended use of the chemical and restrictions on use
Recommended Use Paint, Coatings.
Uses advised against No information available

Details of the supplier of the safety data sheet
Manufacturer Address
SlipDoctors
2101 Midway Road, Suite 350
Carrollton, TX 75006 USA
Telephone: +972-999-9998

Emergency telephone number
Emergency Telephone 24 Hour Chemical Emergency Response: (Spill, Leak, Fire, Exposure or Accident)
CHEMTREC (USA) (800) 424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Vapors)	Category 4
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 3

Label elements

Emergency Overview

Danger

Hazard statements
Harmful if inhaled
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May cause drowsiness or dizziness
Flammable liquid and vapor



Appearance liquid **Physical state** liquid **Odor** Solvent

Precautionary Statements - Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing must not be allowed out of the workplace
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ ventilating / lighting/ tools / equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Wear protective gloves/eye protection/face protection
Keep cool

Precautionary Statements - Response
Specific treatment (see statements on this label)
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
IF INHALED: Remove person to fresh air and keep comfortable for breathing
If experiencing respiratory symptoms: Call a POISON CENTER or doctor
In case of fire: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
Not applicable

Unknown acute toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No.	Weight-%	Trade Secret
Hexane, 1,6-diisocyanateo-, homopolymer	28182-81-2	60 - 100	*
n-Butyl acetate	123-86-4	10 - 30	*
Hexamethylene diisocyanate	822-06-0	0.1 - 1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical advice/attention.

Skin contact

Wash with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if irritation develops and persists. In the event of any complaints or symptoms, avoid further exposure. Wash contaminated clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If breathing is irregular or stopped, administer artificial respiration. It may be dangerous to the person giving mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband.

Ingestion

Get medical attention immediately. Call a physician or poison control center immediately. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband.

Most important symptoms and effects, both acute and delayed

Symptoms

Isocyanate vapors or mist at concentrations above the exposure limits or guidelines can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) with symptoms of runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing difficulty). Persons with a preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the exposure limits or guidelines with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above limits or guidelines may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with fly-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.

Causes skin irritation with symptoms of reddening, itching, and swelling. Can cause skin sensitization. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove.

Causes serious eye irritation with symptoms of eye burns, corneal injury, and possible blindness. Vapor or aerosol may cause irritation with symptoms of burning or tearing.

Ingestion may cause irritation of the digestive tract. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea.

Inhalation of the solvents may cause central nervous system depression with symptoms of nausea, lightheadedness, drowsiness, dizziness, and loss of co-ordination. Ingestion and/or vomiting may cause aspiration into the lungs resulting in chemical pneumonitis (inflammation of the lungs).

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically. Contact poison treatment specialist if large quantities have been ingested or inhaled.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use dry chemical, CO2, water spray (fog), or foam.

Unsuitable extinguishing media High volume water jet.

Specific hazards arising from the chemical
Flammable liquid and vapor. In a fire, or if heated, a pressure increase will occur and the container may burst, with the risk of subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Explosion data
Sensitivity to Mechanical Impact No data available.
Sensitivity to Static Discharge May be ignited by heat, sparks or flames.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions No action shall be taken involving personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walked through spilled material. Shut off all ignition sources. No flares, smoking, or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions

Environmental precautions Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for cleaning up Mix equal amounts of the following: Mineral Spirits (80%), VM&P Naphtha (15%), and household detergent (5%), and a 50-50 mixture of monoethanolamine and water.
In a separate container, blend the two solutions in a 1:1 ratio by volume. Immediately prior to applying this blended neutralization solution onto the contaminated surface area, mix or agitate the container to help ensure uniform mixing of the ingredients. Dispose of waste product or used containers according to local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Prevent the creation of flammable or explosive concentrations or vapor in air and avoid vapor concentration higher than the occupational exposure limits. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Never use pressure to empty container. Comply with the health and safety at-work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixture with air. Use only in well-ventilated areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and

static electricity). Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Risk of self-ignition of used cleaning rags, paper wipes, etc. Contaminated materials should be soaked in water and placed in a closed metal container before disposal.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid contact with moisture/water. Keep at temperatures between 32F and 122F.

Storage Period: 6 months @ 77F: after receipt of material by customer.

Incompatible materials Strong bases. Water. Amines. Alcohols. Copper alloys.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
n-Butyl acetate 123-86-4	STEL: 200 ppm TWA: 150 ppm	TWA: 150 ppm TWA: 710 mg/m³ (vacated) TWA: 150 ppm (vacated) TWA: 710 mg/m³ (vacated) STEL: 200 ppm (vacated) STEL: 950 mg/m³	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m³ STEL: 200 ppm STEL: 950 mg/m³
Hexamethylene diisocyanate 822-06-0	TWA: 0.005 ppm	-	Ceiling: 0.020 ppm 10 min Ceiling: 0.140 mg/m³ 10 min TWA: 0.005 ppm TWA: 0.035 mg/m³

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. The engineering controls also need to keep gas, vapor, or dust concentrations below any exposure limits. Use explosion-proof ventilation equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection Safety eyewear complying with an approved standard should be used when risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side shields.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should be anti-static overalls, boots, and gloves.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid		
Appearance	liquid	**Odor**	Solvent
Color	colorless light yellow	**Odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	125 °C / 257 °F	
Flash point	35 °C / 95 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	7.6%	
Lower flammability limit:	1.7%	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	1.056	
Water solubility	Insoluble - Reacts slowly with water to liberate CO2 gas	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	400 °C / 752 °F	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	160 mPa s	@ 23 °C
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
Material VOC	2.199 lbs/gal
Coating VOC	2.199 lbs/gal
Density	8.797 lbs/gal
Bulk density	1060.46 kg/m^3

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

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

Conditions to avoid
Heat. flames, and sparks.

Incompatible materials
Strong bases. Water. Amines. Alcohols. Copper alloys.

Hazardous Decomposition Products
Carbon dioxide (CO2). Carbon monoxide. Nitrogen oxides (NOx). Hydrogen cyanide. Isocyanate. Isocyanic Acid. Other undetermined compounds.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation No data available.

Eye contact No data available.

Skin contact No data available.

Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hexane, 1,6-diisocyanateo-, homopolymer 28182-81-2	-	-	= 18500 mg/m³ (Rat) 1 h
n-Butyl acetate 123-86-4	= 10768 mg/kg (Rat)	> 17600 mg/kg (Rabbit)	= 390 ppm (Rat) 4 h
Hexamethylene diisocyanate 822-06-0	= 710 µL/kg (Rat)	= 593 mg/kg (Rabbit)	= 0.06 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.
Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 43,072.00 mg/kg
ATEmix (dermal) 70,470.40 mg/kg mg/l
ATEmix (inhalation-dust/mist) 6.19 mg/l
ATEmix (inhalation-vapor) 15.00 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

74.7 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
n-Butyl acetate 123-86-4	1.81

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

The generation of waste should be avoided or minimized whenever possible. Disposal of this product, solutions, or any by-products should at all time comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. This material and its container must be disposed of in a safe manner. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapors from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld, or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

Contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Chemical Name	California Hazardous Waste Status
n-Butyl acetate 123-86-4	Toxic

14. TRANSPORT INFORMATION

DOT

UN/ID no.	1866
Proper shipping name	Resin Solution (contains n-Butyl Acetate, Hexamethylene-1,6-Diisocyante)
Hazard Class	3
Packing Group	III
Emergency Response Guide Number	127

TDG No information available.

MEX No information available.

ICAO (air) No information available.

IATA No information available.

IMDG No information available.

RID No information available.

ADR No information available.

ADN No information available.

Special precautions

All packaging must be reviewed for suitability prior to shipment, and compliance with applicable regulations is the sole responsibility of the person offering the product for transport. Persons loading or unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations. If there are any questions concerning shipments of this product, please call our main office telephone number for clarification.

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies

KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Hexamethylene diisocyanate - 822-06-0	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
n-Butyl acetate 123-86-4	5000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
n-Butyl acetate 123-86-4	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Hexamethylene diisocyanate 822-06-0	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
n-Butyl acetate 123-86-4	X	X	X
Hexamethylene diisocyanate 822-06-0	X	X	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	**Health hazards** 3	**Flammability** 3	**Instability** 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** 3	**Flammability** 3	**Physical hazards** 0	**Personal protection** X

Prepared By SlipDoctors
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Revision Note
Initial Issue

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet