



Safety Data Sheet

BOSS® 535 Polyurethane

Section 1. Identification

Product Identifier	BOSS® 535 Polyurethane		
Synonyms	53501, 53502, 53503, 53507, 53513, 5355, 53517, 53519, 53520		
Manufacturer Stock Numbers	144555, 144575, 144580, 144597, 144691, 146868, 146869, 146870, 146871, 146872, 147027, 147028, 147029, 147163, 147184, 147212, 152279		
Recommended use	Refer to Technical Information		
Uses advised against	Refer to Technical Information		
Manufacturer Contact Address	Soudal 350 Ring Road Elizabethtown, KY, 42701 USA		
	Phone	Emergency Phone	Fax
	(270) 769-3385	(800) 424-9300 CHEMTREC	(270) 765-2412

Section 2. Hazards Identification

Classification	CARCINOGENICITY - Category 2 SENSITIZATION - RESPIRATORY - Category 1A SENSITIZATION - SKIN - Category 1A SERIOUS EYE DAMAGE /EYE IRRITATION - Category 2A SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (Repeated Exposure) - Category 1
Signal Word	Danger



Pictogram
Hazard Statements

Causes damage to organs through prolonged or repeated exposure.
Causes serious eye irritation
Causes skin irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction Suspected of causing cancer.

Precautionary Statements
Response

Get medical advice/attention if you feel unwell.
If experiencing respiratory symptoms: Call a poison center/doctor.
If exposed or concerned: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
If on skin: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Specific treatment (see label)
Take off contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.

Prevention

Contaminated work clothing must not be allowed out of the workplace.
Do not breathe dust/fume/gas/mist/ vapors/spray.
Do not eat, drink or smoke when using this product.
Do not handle until all safety precautions have been read and understood.
Obtain special instructions before use.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Wear respiratory protection.

Storage

Store locked up.

Disposal

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

0%

Ingredients of unknown toxicity

Hazards not Otherwise Classified

Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product is not to be used under conditions of poor ventilation.

Additional Information

Section 3. Ingredients

CAS	Ingredient Name	Weight %
9082-00-2	Oxypropylated Ethylated Glycerol	5% - 10%
68515-49-1	1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	5% - 10%
25322-69-4	Polypropylene Glycol	5% - 10%
1317-65-3	Calcium carbonate	20% - 25%
9002-86-2	Polyvinyl chloride	10% - 15%
103-23-1	Bis(2-ethylhexyl) adipate	1% - 5%
91082-17-6	Sulfonic acids, C10-21-alkane, phenyl esters	1% - 5%
13463-67-7	Titanium Dioxide	1% - 5%
136855-71-5N,N-Dibenzyliden polyoxypropylene diamine		1% - 3%
101-68-8	4,4'-Diphenylmethane diisocyanate	0.1% - 1%
41556-26-7	bis(1,2,2,6,6-penta-methyl-4-piperidiny) sebacate	< 1 %
2530-83-8	3-Glycidoxypropyl-trimethoxysilane	< 1 %
546-93-0	Magnesium carbonate	< 1 %
69-72-7	Salicylic acid	< 1 %
4083-64-1	Benzenesulfonyl isocyanate, 4-methyl-	< 1 %
57834-33-0	Benzoic acid, 4-[[[(methylphenylamino)methylene]amino]-, ethyl ester	< 1 %
709014-50-6(Z)-.alpha.-(3-Carboxy-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) alkyl(C9-11) ethers		< 1 %
171090-93-0	Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, C13-15-branched and linear alkyl esters	< 0.1 %
82919-37-7	Decanedioic acid, methyl 1,2,2,6,6-pentamethyl-4-piperidiny ester	< 0.1 %
684-39-46-3	Alcohols, C9-11, ethoxylated	< 0.05 %

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-Aid Measures

Inhalation

Remove person to fresh air and keep comfortable for breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Skin

Wash with plenty of soap and water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Eyes

Flush eyes with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician.

Ingestion	Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
Most Important Symptoms/Effects	Acute 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.
	Delayed Causes damage to the respiratory system through prolonged or repeated exposure. Suspected of causing cancer.
Indication of any immediate medical attention and special treatment needed	Treat symptomatically and supportively.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media	Powder, foam, CO2
Unsuitable Extinguishing Media	None known
Special Hazards Arising from the Chemical	Irritating, corrosive, and/or toxic fumes and gases may be released upon thermal processing or during combustion.
Hazardous Combustion Products	Oxides of carbon, oxides of nitrogen, amines, chlorides, oxides of titanium
Fire Fighting Measures	Move container from fire area if it can be done without risk. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Avoid inhalation of material or combustion by-products. Prevent entry into waterways, sewers, basements, or confined areas.
Special Protective Equipment and Precautions for Firefighters	Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures	Wear personal protective clothing and equipment, see Section 8.
Methods and Materials for Containment and Cleaning Up	Do not touch or walk through spilled material. Stop leak if you can do it without risk. Keep unnecessary people away, isolate hazard area and deny entry. Do not direct water at spill or source of leak. Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Prevent entry into waterways, sewers, basements, or confined areas. Ventilate the area.
Environmental Precautions	Avoid release to the environment.

Section 7. Handling and Storage

Precautions for Safe Handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area.
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Do not breathe vapor or mist. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing must not be allowed out of the workplace. Wash thoroughly after handling. Avoid release to the environment. Store locked up. Store at room temperature. Keep dry. Store in a well-ventilated area. Keep only in original container. Maximum storage period (time): 1 year. No data available

Conditions for Safe Storage, Including any Incompatibilities
Incompatible Materials

Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits	Ingredient Name	ACGIH TLV	OSHA PEL	STEL
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Oxypropylated Ethylated Glycerol	N/A	N/A	N/A
1,2-Benzenedicarboxylic acid, di-C9-11 branched alkyl esters, C10-rich	N/A	N/A	N/A
Polypropylene Glycol	N/A	N/A	N/A
Calcium carbonate	N/A	TWA: 15 mg/m3 total dust TWA: 5 mg/m3 respirable fraction	N/A
Polyvinyl chloride	TWA: 1 mg/m3 respirable fraction	N/A	N/A
Bis(2-ethylhexyl) adipate	N/A	N/A	N/A
Sulfonic acids, C10-21-alkane, phenyl esters	N/A	N/A	N/A
Titanium Dioxide	TWA: 10 mg/m3	TWA: 15 mg/m3 total dust	N/A
N,N-Dibenzyliden polyoxypropylene diamine	N/A	N/A	N/A
4,4'-Diphenylmethane diisocyanate	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m3	N/A
bis(1,2,2,6,6-penta-methyl-4-piperidiny) sebacate	N/A	N/A	N/A
3-Glycidoxypropyl-trimethoxysilane	N/A	N/A	N/A
Magnesium carbonate	N/A	N/A	(Z)-N/A
Salicylic acid	N/A	N/A	N/A
N/A Benzenesulfonyl isocyanate, 4-methyl-	N/A	N/A	2-N/A
Benzoic acid, 4-[[[(methylphenylamino)methylene]amino]-, ethyl ester	N/A	N/A	
propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) alkyl(C9-11) ethers			

.alpha.-(3-Carboxy-1-oxo-

Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, C13-15-branched and linear alkyl esters	N/A	N/A	N/A
Decanedioic acid, methyl 1,2,2,6,6pentamethyl-4-piperidinyl ester	N/A	N/A	N/A
Alcohols, C9-11, ethoxylated	N/A	N/A	

Personal Protective Equipment
ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)
Engineering Controls

Goggles, Gloves, Face Shield

There are no biological limit values for any of this product's components.

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Eye/face protection
Wear safety goggles with a faceshield.

Skin Protection
Wear appropriate chemical resistant clothing.

Respiratory Protection
Respirators depend on exposure level. SCBA with full face piece recommended during change outs and available in case of emergency.

Glove Recommendations
Wear appropriate chemical resistant gloves.

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Refer to product label/paste
Odor	Characteristic
Odor Threshold	Not available
Solubility	Not available
Partition coefficient Water/n-octanol	Not available
VOC%	N/A
Viscosity	Not available
Specific Gravity	1.3
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	N/A

Boiling Point	Not available
Boiling Range	N/A
LEL	N/A
UEL	N/A
Evaporation Rate	Not available
Flammability	Not available
Decomposition Temperature	Not available
Auto-ignition Temperature	Not available
Vapor Pressure	Not available
Vapor Density	Not available
FP Method	N/A
pH	Not available
Melting Point	Not available

Note The above information is not intended for use in preparing product specifications. Contact Soudal before writing specifications.

Section 10. Stability and Reactivity

Reactivity	No reactivity hazard is expected.
Chemical Stability	Stable under normal conditions of use.
Possibility of Hazardous Conditions to Avoid	Hazardous polymerization will not occur. Reactions
Incompatible Materials	Keep away from open flame and high temperature. Not available
Hazardous decomposition products	Oxides of carbon, oxides of nitrogen, ammonia, chlorides, oxides of titanium

Section 11. Toxicological Information

Information on Likely Routes of Exposure	Inhalation Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.
	Skin Contact Causes skin irritation. May cause an allergic skin reaction.
	Eye Contact Causes serious eye irritation.
	Ingestion No information on significant adverse effects.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Glycerol poly(oxyethylene) poly(oxypropylene) ether (9082-00-2) Oral

LD50 Rat >10 g/kg

Polypropylene glycol (25322-69-4)

Oral LD50 Rat 3750 mg/kg

1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich (68515-49-1)

Oral LD50 Rat >60000 mg/kg (no deaths occurred)

Dermal LD50 Rabbit 16000 mg/kg

Titanium dioxide (13463-67-7)

Oral LD50 Rat >10000 mg/kg

Sulfonic acids, C10-21-alkane, phenyl esters (91082-17-6)

Oral LD50 Rat 26380 mg/kg

Dermal LD50 Rat >1055 mg/kg

Bis(2-ethylhexyl) adipate (103-23-1)

Oral LD50 Rat 5600 mg/kg

Dermal LD50 Rabbit 8410 mg/kg

4,4'-Methylenediphenyl diisocyanate (101-68-8)

Oral LD50 Rat 31600 mg/kg

Inhalation LC50 Rat 369 mg/m³ 4 h

Salicylic acid (69-72-7)

Oral LD50 Rat 891 mg/kg

Dermal LD50 Rat >2 g/kg

Inhalation LC50 Rat >900 mg/m³ 1 h

Glycidoxypropyltrimethoxysilane (2530-83-8)

Oral LD50 Rat 7.01 g/kg

Inhalation LC50 Rat >5.3 mg/L 4 h

Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

Oral LD50 Rat 2615 mg/kg

Benzenesulfonyl isocyanate, 4-methyl- (4083-64-1)

Oral LD50 Rat 2234 mg/kg

Inhalation LC50 Rat >640 ppm 1 h

Alcohols, C9-11, ethoxylated (68439-46-3) Oral

LD50 Rat 1400 mg/kg

Maleic anhydride (108-31-6)

Oral LD50 Rat 235 mg/kg

Dermal LD50 Rabbit 2620 mg/kg

Inhalation LC50 Rat 0.16 mg/L 4 h

Product Toxicity Data Acute Toxicity Estimate

Dermal > 2000 mg/kg

Inhalation - Vapor >10 mg/L

Oral > 2000 mg/kg

Immediate Effects Harmful if inhaled. Causes serious eye irritation. Causes skin irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Delayed Effects Suspected of causing cancer. Causes damage to the respiratory system through prolonged or repeated exposure.

Irritation/Corrosivity Data Causes skin and eye irritation.

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

Dermal Sensitization May cause an allergic skin reaction.

Carcinogenicity Component Carcinogenicity

Polyvinyl chloride (9002-86-2)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Supplement 7 [1987] ; Monograph 19 [1979] (Group 3 (not classifiable))

DFG: Category 4 (no significant contribution to human cancer)

Titanium dioxide (13463-67-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 93 [2010] ; Monograph 47 [1989] (Group 2B (possibly carcinogenic to humans))

DFG: Category 3A (could be carcinogenic for man ;inhalable fraction with the exception of ultra small particles)

OSHA: Present

NIOSH: potential occupational carcinogen

Bis(2-ethylhexyl) adipate (103-23-1)

IARC: Monograph 77 [2000] ; Supplement 7 [1987] (Group 3 (not classifiable))

4,4'-Methylenediphenyl diisocyanate (101-68-8)

IARC: Monograph 71 [1999] ; Supplement 7 [1987] ; Monograph 19 [1979] (Group 3 (not classifiable))

DFG: Category 4 (no significant contribution to human cancer)

Maleic anhydride (108-31-6)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Product Carcinogenicity

Suspected of causing cancer

Germ Cell Mutagenicity No information available for the product.

Tumorigenic Data No information available for the product.

Reproductive toxicity No information available for the product.

Specific Target Organ Single Exposure

Toxicity No target organs identified

Repeated Exposure

Respiratory system

Aspiration hazard Not expected to be an aspiration hazard.

Medical Conditions No information available for the product.

Aggravated by Exposure

Section 12. Ecological Information

Component Analysis - Aquatic Toxicity 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich (68515-49-1)
Fish:
LC50 96 h Pimephales promelas >0.66 mg/L [static]
LC50 96 h Pimephales promelas >1 mg/L [flow-through]
LC50 96 h Oncorhynchus mykiss >1 mg/L [static]
LC50 96 h Oncorhynchus mykiss >0.62 mg/L [flow-through]
LC50 96 h Lepomis macrochirus >0.55 mg/L [static] Algae:
EC50 96 h Pseudokirchneriella subcapitata >1.3 mg/L IUCLID Invertebrate:
EC50 48 h Daphnia magna >0.18 mg/L IUCLID

Bis(2-ethylhexyl) adipate (103-23-1) Fish:
LC50 96 h Lepomis macrochirus 0.48 - 0.85 mg/L [static] LC50
96 h Oncorhynchus mykiss 0.48 - 0.85 mg/L [static] LC50 96 h
Pimephales promelas 0.48 - 0.85 mg/L [static] Algae:
EC50 72 h Desmodesmus subspicatus >500 mg/L IUCLID
Invertebrate:
EC50 48 h Daphnia magna >1.6 mg/L IUCLID

Salicylic acid (69-72-7)
Invertebrate:
EC50 48 h Daphnia magna 870 mg/L [Static] EPA

Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7) Fish:
LC50 96 h Lepomis macrochirus 0.97 mg/L [static]

Maleic anhydride (108-31-6) Algae:
EC50 72 h Desmodesmus subspicatus 29 mg/L IUCLID

Persistence and No information available for the product. Degradability

Bioaccumulative Potential No information available for the product.

Mobility in Soil No information available for the product. Other Toxicity

No information available for the product.

Section 13. Disposal

Disposal Methods	Dispose of contents/container in accordance with local/regional/national/international regulations.
Component Waste Numbers	The U.S. EPA has not published waste numbers for this product's components.

Section 14. Transport Information

UN Number	N/A
UN Proper Shipping Name	Not regulated
DOT Classification	Not regulated
Packing Group	Not regulated

Section 15. Regulatory Information

U.S. Federal Regulations This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

4,4'-Methylenediphenyl diisocyanate (101-68-8) SARA 313:

1 % de minimis concentration CERCLA:

5000 lb final RQ ; 2270 kg final RQ

Maleic anhydride (108-31-6) SARA

313:

1 % de minimis concentration CERCLA:

5000 lb final RQ ; 2270 kg final RQ

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories Carcinogenicity; Skin Corrosion/Irritation; Respiratory/Skin Sensitization; Serious Eye Damage/Eye Irritation; Specific Target Organ Toxicity

U.S. State Regulations

Limestone (1317-65-3)

MA, MN, NJ, PA

Polyvinyl chloride (9002-86-2)

NJ

Polypropylene glycol (25322-69-4)

MN

Titanium dioxide (13463-67-7)

MA, MN, NJ, PA

Bis(2-ethylhexyl) adipate (103-23-1)

CA, MA, NJ, PA

4,4'-Methylenediphenyl diisocyanate (101-68-8)

CA, MA, MN, NJ, PA

Carbonic acid, magnesium salt (1:1) (546-93-0) MA,

MN, NJ

p-Toluene sulfonyl chloride (98-59-9)

MN

Maleic anhydride (108-31-6)

CA, MA, MN, NJ, PA

WARNING: This product can expose you to chemicals including Titanium dioxide , which is known to the State of California to cause cancer and 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich , which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich (68515-49-1)

Repro/Dev. Tox developmental toxicity , 4/20/2007

Titanium dioxide (13463-67-7)

Carc: carcinogen , 9/2/2011 (airborne, unbound particles of respirable size)

California Prop 65

Section 16. Other Information

Revision Date

5/23/2019

Disclaimer

The data contained herein is based upon information that Soudal believes to be reliable. Users of this product have the responsibility to determine that suitability of use and to adopt all necessary precautions to ensure the safety and protection of property and persons involved in said use. All statements or suggestions are made without warranty, expressed or implied, regarding the accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.