

GRIP-N-SHIELD(TM)
Revision Number 2

Revision Date 18-Apr-2019 Supersedes Date: 21-Jun-2016

1. Identification

1.1. Product Identifier

Product Name GRIP-N-SHIELD(TM)

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

Recommended use Adhesives.

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Responsible Party

Bostik Inc.

11320 W. Watertown Plank Road Wauwatosa, Wisconsin 53226 USA

Phone: +1 (800) 843-0844 (Domestic Toll Free) Phone: +1 (414) 774-2250 (International)

Fax: +1 (414) 774-8075

E-mail msds@bostik.com

1.4. Emergency telephone number

Telephone: 1-800-227-0332 (Outside U.S.) 1-703-527-3887

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Respiratory sensitization	Category 1
Skin sensitization	Category 1
Reproductive toxicity	Category 1B

2.2. Label Elements

EMERGENCY OVERVIEW

Danger

Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause an allergic skin reaction
May damage fertility or the unborn child



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Appearance Paste Physical State Liquid Odor No information available

Precautionary Statements - Prevention

Obtain special instructions before use

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

Use personal protective equipment as required

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

In case of inadequate ventilation wear respiratory protection

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

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Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Unknown acute toxicity

23 % of the mixture consists of ingredient(s) of unknown toxicity

2.3. Other Information

No information available.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Mixture

3.2 Mixtures

Chemical name	CAS No.	Weight-%
Limestone	1317-65-3	30 - 60
Propylene carbonate	108-32-7	1 - 5
Carbon black	1333-86-4	0.1 - 1
Quartz	14808-60-7	0.1 - 1
Benzene, 1,1'-methylenebis[isocyanato-	26447-40-5	0.1 - 1
Benzenesulfonyl isocyanate, 4-methyl-	4083-64-1	0.1 - 1
Dibutyltin dilaurate	77-58-7	0.1 - 1

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

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice

Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. If symptoms persist, call a physician.

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Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms

persist, call a physician.

Skin contactWash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Wash contaminated clothing before reuse. May cause sensitization by

skin contact. In the case of skin irritation or allergic reactions see a physician.

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

breathing is difficult, give oxygen. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

If symptoms persist, call a physician.

Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth

to an unconscious person. If swallowed, do not induce vomiting: seek medical advice

immediately and show this container or label.

Self-protection of the first aider

Use personal protective equipment as required. Ensure that medical personnel are aware

of the material(s) involved and take precautions to protect themselves.

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

Symptoms No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization of susceptible persons. May cause sensitization by inhalation and

skin contact. Treat symptomatically.

4.4. Reference to Other Sections

Reference to other sections Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Section 11: TOXICOLOGY INFORMATION

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Use. Dry chemical. Carbon dioxide (CO2). Water spray (fog). Alcohol resistant foam. Use water spray or fog; do not use straight streams.

Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact.

Explosion Data

Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

5.3. Advice for firefighters

Special protective actions for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full

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protective gear.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

spill/leak. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin,

eyes or clothing. Wash thoroughly after handling.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do

not flush into surface water or sanitary sewer system. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. 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

Use personal protective equipment as required. Dam up. Soak up with inert absorbent

material. Pick up and transfer to properly labeled containers. Clean contaminated surface

thoroughly.

6.4. Reference to other sections

Reference to other sections Section 7: HANDLING AND STORAGE

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Section 13: DISPOSAL CONSIDERATIONS

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

hygiene and safety practice. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation. Avoid contact with skin, eyes or clothing. After contact with skin, wash immediately with plenty of water

and soap. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep out of the reach of children. Keep in properly labeled containers. Keep containers

tightly closed in a dry, cool and well-ventilated place. Protect from direct contact with water

or excessive moisture.

Incompatible materials Water. Alcohols. Strong bases. Strong oxidizing agents. Finely powdered metals.

7.3. Specific end use(s)

Specific Use(s)
Adhesives.

Other information No information available.

7.4. References to Other Sections

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Reference to other sections Section 13: DISPOSAL CONSIDERATIONS

Section 10: STABILITY AND REACTIVITY

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Guidelines

. This product contains substances which in their raw state are powder form, however in this product they are in a non-respirable form. Inhalation of powder/dust particles is unlikely to occur from exposure to this product.

Chemical name	ACGIH TLV	NIOSH IDLH	OSHA PEL	Mexico
Limestone 1317-65-3	-	TWA: 10 mg/m³ total dust TWA: 5 mg/m³ respirable dust	TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction	TWA: 10 mg/m³ STEL: 20 mg/m³
Carbon black 1333-86-4	TWA: 3 mg/m³ inhalable particulate matter	IDLH: 1750 mg/m³ TWA: 3.5 mg/m³ TWA: 0.1 mg/m³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH	TWA: 3.5 mg/m³	TWA: 3.5 mg/m³ STEL: 7 mg/m³
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	IDLH: 50 mg/m³ respirable dust TWA: 0.05 mg/m³ respirable dust	TWA: 50 μg/m³ TWA: 50 μg/m³ excludes construction work, agricultural operations, and exposures that result from the processing of sorptive clays : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m³ TWA respirable fraction	TWA: 0.1 mg/m³
Benzene, 1,1'-methylenebis[isocyanato - 26447-40-5	-	-	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m ³	TWA: 0.02 ppm TWA: 0.2 mg/m ³ TWA: 0.005 ppm TWA: 0.051 mg/m ³
Dibutyltin dilaurate 77-58-7	STEL: 0.2 mg/m³ Sn TWA: 0.1 mg/m³ Sn S*	IDLH: 25 mg/m³ Sn TWA: 0.1 mg/m³ except Cyhexatin Sn	TWA: 0.1 mg/m³ Sn	TWA: 0.1 mg/m³ STEL: 0.2 mg/m³

Chemical name	Argentina	Brazil	Chile	Venezuela
Limestone	TWA: 10 mg/m ³	-	TWA: 7 mg/m ³	-
1317-65-3				
Carbon black	TWA: 3.5 mg/m ³	-	-	TWA: 3.5 mg/m ³
1333-86-4				
Quartz	TWA: 0.05 mg/m ³	-	TWA: 0.08 mg/m ³	TWA: 0.025 mg/m ³
14808-60-7				
Benzene,	TWA: 0.005 ppm	-	TWA: 0.004 ppm	-
1,1'-methylenebis[isocyanato			TWA: 0.045 mg/m ³	
-				
26447-40-5				
Dibutyltin dilaurate	TWA: 0.1 mg/m ³	-	TWA: 0.09 mg/m ³	Skin
77-58-7	Skin		Skin	STEL: 0.2 mg/m ³
	STEL: 0.2 mg/m ³			TWA: 0.1 mg/m ³

8.2. Exposure controls

Engineering controls Showers

Eyewash stations Ventilation systems.

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Personal protective equipment [PPE]

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear suitable chemical resistant gloves. The selection of suitable gloves does not only

depend on the material, but also on further marks of quality and various manufacturers.

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 Use personal protective equipment as required. Handle in accordance with good industrial

hygiene and safety practice. When using do not eat, drink or smoke. Avoid contact with eyes, skin and clothing. Wash face, hands and any exposed skin thoroughly after handling. Take off all contaminated clothing and wash it before reuse. Regular cleaning of equipment,

work area and clothing is recommended.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical StateLiquidAppearancePasteColorBrown

Odor No information available Odor Threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

pH No information available

Melting point / freezing point
Boiling point / boiling range
Flash Point
Fvaporation Rate
Flammability (solid, gas)

No data available
No data available
No information available
No information available

Flammability Limit in Air

Upper flammability or explosive No information available

limits

Lower flammability or explosive No information available

limits

Vapor PressureNo information availableVapor DensityNo information availableRelative DensityNo information availableWater SolubilityNo information available

Solubility in Other Solvents

Partition coefficientNo information availableAutoignition TemperatureNo information availableDecomposition TemperatureNo information availableKinematic ViscosityNo information available

Dynamic Viscosity No information available

Explosive propertiesNo information available
No information available

9.2. Other information

Softening PointNo information availableMolecular WeightNo information availableSolvent content (%)No information available

Solid content (%) 96.3 Density 1.712 g/cm³

VOC (volatile organic compound) 0 g/L / 0 %

Section 10: STABILITY AND REACTIVITY

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10.1. Reactivity

None under normal use conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization may occur.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight. Storage near to reactive materials. Keep from any possible contact with water. Protect from moisture.

10.5. Incompatible materials

Water. Alcohols. Strong bases. Strong oxidizing agents. Finely powdered metals.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx). Hydrogen cyanide. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Section 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects

Product Information No data available

Inhalation May cause sensitization by inhalation.

Eye contact No data available.

Skin contact May cause sensitization by skin contact.

Ingestion No data available.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Limestone 1317-65-3	>5000 mg/kg (rat)	-	-
Propylene carbonate 108-32-7	LD50 > 5000 mg/kg (Rat) OECD 401	> 3000 mg/kg (Rabbit)	-
Carbon black 1333-86-4	LD 50 > 8000 mg/kg (rat) OECD 401	> 3 g/kg(Rabbit)	-
Quartz 14808-60-7	>2000 mg/kg (Rat)	-	-
Benzene, 1,1'-methylenebis[isocyanato- 26447-40-5	> 10000 mg/kg(Rat)	> 10000 mg/kg(Rabbit)	= 490 mg/m³(Rat) 4 h
Benzenesulfonyl isocyanate, 4-methyl- 4083-64-1	= 2234 mg/kg (Rat)	-	> 640 ppm (Rat)1 h
Dibutyltin dilaurate 77-58-7	= 2071 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

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

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Symptoms
Skin corrosion/irritation
Serious eye damage/eye irritation
Irritation
Corrosivity
No information available.
No information available.
No information available.
No information available.

Sensitization May cause sensitization by inhalation and skin contact.

Germ cell mutagenicity No information available.

Reproductive toxicity Product is or contains a chemical which is a known or suspected reproductive hazard.

Developmental ToxicityNo information available.TeratogenicityNo information available.STOT - single exposureNo information available.STOT - repeated exposureNo information available.

Chronic Toxicity Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated

exposure.

Target Organ EffectsEyes, Skin, Respiratory system, Reproductive System.
Aspiration hazard
No information available.

Carring remisitive The table below indicates whether each as

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

As Carbon black (1333-86-4) is inextricably bound in the polymer matrix, it is not expected to be available as an airborne hazard (dust, mist, or spray) under normal condition of uses.

As Quartz (14808-60-7) is inextricably bound in the polymer matrix, it is not expected to be available as an airborne hazard (dust, mist, or spray) under normal condition of uses.

Chemical name	ACGIH	IARC	NTP	OSHA
Carbon black 1333-86-4	A3	Group 2B	-	X
Quartz	A2	Group 1	Known	X
14808-60-7 Benzene,	-	Group 3	-	-
1,1'-methylenebis[isocyanato				
26447-40-5				

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

A3 - Confirmed animal carcinogen with unknown relevance to humans

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

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Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

No information available

Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Limestone	CE50 (72h) >200mg/L Algae	CL50 (96h)>10000mg/L Fish		CE50 (48h) >1000 mg/L
1317-65-3	(Desmondesmus subspicatus)	(Oncorhynchus mykiss)		Daphnia Magna
Propylene carbonate	EC50: >500mg/L (72h,	LC50 96 h > 1000 mg/L	EC50 > 10000 mg/L 17 h	EC50: >500mg/L (48h,
108-32-7	Desmodesmus subspicatus)	(Cyprinus carpio semi-static)		Daphnia magna)
Carbon black	>10000 mg/l (Desmodesmus	>1000 mg/l (Brachydanio		EC50: >5600mg/L (24h,
1333-86-4	subspicatus) OECD 202	rerio) OCDE 203		Daphnia magna)
Benzene,	EC50: =3230mg/L (96h,			EC50: >1000mg/L (24h,

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1,1'-methylenebis[isocyanato	Skeletonema costatum)		Daphnia magna)
26447-40-5			
Dibutyltin dilaurate		LC50: =2mg/L (48h, Oryzias	
77-58-7		latipes)	

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Disposal of Wastes It is the responsibility of the waste generator to determine the toxicity and physical

properties of the material generated to determine the proper waste identification and

disposal methods in compliance with applicable regulations

Contaminated packaging Dispose of in accordance with federal, state and local regulations

Section 14: TRANSPORT INFORMATION

DOTNot regulatedIATANot regulatedIMDGNot regulated

Section 15: REGULATORY INFORMATION

Global Inventories

TSCA	Listed
DSL	Listed

Leaend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL - Canadian Domestic Substances List

Listed - The components of this product are either listed or exempt from listing on inventory.

Not Listed - One or more components of this product are not listed on inventory.

United States of America

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

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SARA 311/312 Hazard Categories

Acute Health HazardYesChronic Health HazardYesFire hazardNoSudden release of pressure hazardNoReactive HazardNo

Europe

Restrictions of Use of Hazardous Substances (RoHS) Directive 2011/65/EU

This product does not contain Lead (7439-92-1), Cadmium (7440-43-9), Mercury (7439-97-6), Hexavalent chromium (7440-47-3), Polybrominated biphenyls (PBB), and Polybrominated diphenyl ethers (PBDE) above the regulated limit mentioned in this regulation

SVHC: Substances of Very High Concern for Authorization:

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

No information available

Key Literature References and Sources for Data

No information available

Prepared By Product Safety & Regulatory Affairs

Revision Date 18-Apr-2019

Revision note SDS sections updated, 1, 3, 4, 5, 6, 7, 8, 9, 11, 12, 15, 16.

Training Advice No information available

Further information No information available

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