

SEAL N FLEX 2K GREY
Version 1

Revision Date 13-Dec-2016
Supersedes Date: 13-Dec-2016

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product Name SEAL N FLEX 2K GREY
Pure substance/mixture mixture

1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended use Adhesives, sealants.
Uses Advised Against Consumer use.

1.3. Details of the Supplier of the Safety Data Sheet

Company Name

Bostik (Shanghai) Management Co., Ltd
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 Fax: 021-60763133

Manufacturer

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Please refer to Section 16 for local affiliate addresses.

1.4. Emergency Telephone Number

Emergency Telephone 0532-8388 9090 (China only)

E-mail address SDS.AP@Bostik.com

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the Substance or Mixture

Skin Corrosion/Irritation	Category 2 (6.3A)
Serious Eye Damage/Eye Irritation	Category 2 (6.4)
Respiratory sensitization	Category 1A
Skin sensitization	Category 1A
Carcinogenicity	Category 2 (6.7B)
STOT - Single Exposure	Category 3 (†)
Specific target organ toxicity (repeated exposure)	Category 2 (6.9B)

Classification in parenthesis is applicable for New Zealand Hazard Classification

ERMA Group No information available

2.2. Label Elements



Signal Word

DANGER

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Hazard statements

H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
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

Precautionary Statements - Prevention

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P281 - Use personal protective equipment as required
P264 - Wash face, hands and any exposed skin thoroughly after handling
P285 - In case of inadequate ventilation wear respiratory protection
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

P321 - Specific treatment (see supplemental first aid instructions on this label)

Inhalation

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Skin

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P362 - Take off contaminated clothing and wash before reuse
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

EYES

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention

Precautionary Statements - Storage

P405 - Store locked up
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other Hazards

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Mixture

3.2 Mixtures

Chemical Name	CAS No.	Weight-%
4,4'-Methylenediphenyl diisocyanate	101-68-8	30 - 40

*** Any remaining ingredients are not hazardous

Section 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

General Advice

Remove/Take off immediately all contaminated clothing. If medical advice is needed, have product container or label at hand.

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

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Skin Contact	Wash off immediately with soap and plenty of water. Get medical attention if symptoms occur.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Hold eyelids apart and consult an physician.
Ingestion	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. If swallowed, rinse mouth with water (only if the person is conscious).
Self-protection of the First Aider	First aider: Pay attention to self-protection.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms	None known.
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4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physicians	None.
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4.4. Reference to Other Sections

Reference to Other Sections	Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION. Section 11: TOXICOLOGY INFORMATION.
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Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media	Carbon dioxide (CO ₂). Extinguishing powder. Water spray or fog. Alcohol resistant foam.
Unsuitable Extinguishing Media	No information available.

5.2. Special Hazards Arising from the Substance or Mixture

Specific Hazards Arising from the Chemical	Thermal decomposition can lead to release of toxic/corrosive gases and vapors. Carbon monoxide. Carbon dioxide (CO ₂).
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5.3. Advice for Firefighters

Special Protective Equipment for Fire-fighters	In case of fire: Wear self-contained breathing apparatus. Do not allow run-off from fire-fighting to enter drains or water courses.
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Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions	Avoid contact with skin, eyes or clothing. Use personal protection equipment.
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6.2. Environmental Precautions

Environmental Precautions	Prevent entry into waterways, sewers, basements or confined areas. Do not allow to enter into soil/subsoil.
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6.3. Methods and Material for Containment and Cleaning up

Methods for Containment	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	Cover liquid spill with sand, earth or other non-combustible absorbent material. Use personal protective equipment as required. Dam up. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Soak up

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with inert absorbent material. Pick up and transfer to properly labeled containers.

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

Advice on Safe Handling Avoid contact with skin, eyes or clothing. No special precautions are needed in handling this material. Use personal protective equipment as required. Fire prevention measures. No special measures are necessary.

7.2. Conditions for Safe Storage, including any Incompatibilities

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse.

Storage Conditions Keep away from food, drink and animal feeding stuffs. None. Recommended storage temperature. 10 - 35 °C.

Incompatible Materials None known

7.3. Specific End Use(s)

Other Information No information available.

7.4. References to Other Sections

Reference to Other Sections Section 13: DISPOSAL CONSIDERATIONS. Section 10: STABILITY AND REACTIVITY.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Exposure Limits

Chemical Name	China	Japan	Korea	New Zealand	Australia
4,4'-Methylenediphenyl diisocyanate 101-68-8	TWA: 0.05 mg/m ³ STEL: 0.1 mg/m ³	TWA: 0.05 mg/m ³	TWA: 0.005 ppm TWA: 0.055 mg/m ³	TWA: 0.02 mg/m ³ STEL: 0.07 mg/m ³	0.02 mg/m ³ 0.07 mg/m ³ STEL

Chemical Name	European Union	ACGIH TLV	NIOSH IDLH	OSHA PEL
4,4'-Methylenediphenyl diisocyanate 101-68-8	-	TWA: 0.005 ppm	IDLH: 75 mg/m ³ Ceiling: 0.020 ppm 10 min Ceiling: 0.2 mg/m ³ 10 min TWA: 0.005 ppm TWA: 0.05 mg/m ³	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m ³

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

Other Information No information available

8.2. Exposure Controls

Engineering Controls No special technical protective measures are necessary. Please refer also to Safety

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Data Sheet of Part B.

PPE - Personal Protection Equipment

Eye/Face Protection	Wear safety glasses with side shields (or goggles).
Skin and Body Protection	Wear suitable protective clothing. No special technical protective measures are necessary under normal conditions.
Hand 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	No protective equipment is needed under normal use conditions. Respiratory protection required in insufficiently ventilated working areas and during spraying. An air-fed mask, or for short periods of work, a combination of professional filter is recommended.
General Hygiene Considerations	Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse.

Environmental Exposure Controls Do not allow uncontrolled discharge of product into the environment.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Appearance	Viscous Liquid
Color	Brown
Odor	Musty
Odor Threshold	No information available

Property	Values	Remarks • Method
pH	No information available	
Melting Point/Freezing Point	No information available	
Boiling Point	> 200 °C / 392 °F	
Flash Point	> 180 °C / > 356 °F	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	Not applicable for liquids
Flammability Limit in Air		
Upper Flammability Limit	No information available	
Lower Flammability Limit	No information available	
Vapor Pressure	> 0.0001	
Vapor Density	No information available	
Specific Gravity	No information available	
Water Solubility	Insoluble in water	
Solubility in Other Solvents	No information available	
Partition Coefficient	No information available	
Autoignition Temperature	No information available	
Decomposition Temperature	No information available	
Kinematic Viscosity	No information available	
Dynamic Viscosity	No information available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	

9.2. Other Information

Softening Point	No information available
Molecular Weight	No information available
Solvent Content (%)	No information available
Solid Content (%)	No information available
Density	1.25 g/cm ³
Bulk Density	No information available
VOC	

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity None under normal use conditions.

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10.2. Chemical Stability

Stability Stable under normal conditions

10.3. Possibility of Hazardous Reactions

Possibility of Hazardous Reactions None known.

Hazardous Polymerization Hazardous polymerization may occur.

10.4. Conditions to Avoid

Conditions to Avoid Exposure to air or moisture over prolonged periods.

10.5. Incompatible Materials

Incompatible Materials None known.

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products None under normal use and recommended storage conditions.

Section 11: TOXICOLOGY INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

Inhalation	No Data Available.
Eye contact	No Data Available.
Skin Contact	No Data Available.
Ingestion	No Data Available.

Numerical measures of toxicity

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
35 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
35 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
4,4'-Methylenediphenyl diisocyanate 101-68-8	= 31600 mg/kg (Rat) = 9200 mg/kg (Rat)	LD 50 > 9400 mg/kg (Rabbit)	= 2.24 mg/L (Rat) 4 h

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Skin Corrosion/Irritation	No information available.
Serious Eye Damage/Eye Irritation	No information available.
Sensitization	No information available.
Germ Cell Mutagenicity	No information available.
Reproductive Toxicity	No information available.
STOT - Single Exposure	No information available.
STOT - Repeated Exposure	No information available.
Target Organ Effects	Respiratory system, Eyes, Skin, Central nervous system.
Aspiration Hazard	Not applicable.
Carcinogenicity	The following substance(s) are classified in Annex VI CLP (1272/2008) as carcinogenic.

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Chemical Name	IARC	China	Japan
4,4'-Methylenediphenyl diisocyanate	Group 3	-	-

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans Group 3 - Not Classifiable as to Carcinogenicity in Humans

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity

Product Information

None known.

Component Information

Data obtained on the component(s) include

Chemical Name	Algae/Aquatic Plants	Fish	Crustacea
4,4'-Methylenediphenyl diisocyanate 101-68-8	-	>1000 mg/l (Danio rerio)	-

12.2. Persistence and Degradability

No information available.

12.3. Bioaccumulative Potential

No information available.

12.4. Mobility in Soil

No information available.

12.5. Results of PBT and vPvB Assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other Adverse Effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste from Residues/Unused Products

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

Contaminated Packaging

Handle contaminated packages in the same way as the product itself.

Section 14: TRANSPORTATION INFORMATION

IMDG

Not regulated

IATA

Not regulated

ADR

Not regulated

Section 15: REGULATORY INFORMATION

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National Regulations

China

This product contains the following substance(s)

Chemical Name	Weight-%	China - Catalog of Hazardous Chemicals - Hazardous Chemicals
4,4'-Methylenediphenyl diisocyanate 101-68-8	30 - 40	X

Japan

This product contains the following Class 1 and Class 2 Designated Chemical Substances per Japan PRTR Law.

Chemical Name	Weight-%	Japan - Pollutant Release Transfer Register (PRTR) - Class 1 Substances
4,4'-Methylenediphenyl diisocyanate 101-68-8	30 - 40	x

Korea

K-REACH/chemical control act(CCA)

This product contains the following substance(s)

Chemical Name	Weight-%	Korea - MOE - K-REACH/CCA - Toxic Substances	Korea - MOE - K-REACH/CCA - Prohibited Substances	Korea - MOE - K-REACH/CCA - Restricted Substances	Korea - MOE - Chemicals Control Act (CCA) - Accident Precaution Chemicals	Korea - MOE - K-REACH - Existing Substances Subject to Registration
4,4'-Methylenediphenyl diisocyanate 101-68-8	30 - 40	O				O

International Regulations

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.

EU-REACH (1907/2006) - Candidate List of Substances of Very High Concern (SVHC) for Authorization in accordance with Article 59

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

Section 16: OTHER INFORMATION

Local Contacts

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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 13-Dec-2016

Revision Note Not applicable.

Training Advice When working with hazardous materials, regular training of operators is required by law

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 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