

SEAL N FLEX FC GREY
 Revision Number 2

Revision date 01-Aug-2019
 Supersedes Date: 01-Aug-2019

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

1.1. Product Identifier

Product Name SEAL N FLEX FC GREY
Pure substance/mixture Mixture

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

Recommended use Adhesives and/or sealants.
Uses advised against No information available.

1.3. Details of the supplier of the safety data sheet

Company Name
 Bostik New Zealand Limited
 19 Eastern Hutt Road Wingate,
 Lower Hutt, New Zealand
 Tel: 04-567 5119
 Fax: 04-567 5412

Manufacturer
 Bostik Australia Pty Ltd
 51-71 High Street,
 Thomastown Victoria
 Australia
 Tel: 613 9279-9333
 Fax: 613 9279-9342

ABN: 79 003 893 838

1.4. Emergency telephone number

Emergency Telephone 24 Hr: 0800 243 622
 +64 4 917 9888
 Poison Centre : 0800 764 766

E-mail address SDS.AP@Bostik.com

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Skin corrosion/irritation	Category 2 (6.3A)
Serious eye damage/eye irritation	Category 2A (6.4A)
Respiratory sensitization	Category 1A
Skin sensitization	Category 1A
Carcinogenicity	Category 2 (6.7B)
Hazardous to the Aquatic Environment - Acute Hazard	Category 3 (9.1D)

Classification in parenthesis is applicable for New Zealand Hazard Classification

2.2. Label Elements



Signal word Danger

Hazard statements

H319 - Causes serious eye irritation
 H351 - Suspected of causing cancer
 H315 - Causes skin irritation

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H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H402 - Harmful to aquatic life
H317 - May cause an allergic skin reaction

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
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P284 - In case of inadequate ventilation wear respiratory protection
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves
P273 - Avoid release to the environment

Inhalation

P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

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

Storage

P405 - Store locked up

Disposal

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

2.3. Other Hazards

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Mixture

3.2 Mixtures

Chemical name	CAS No.	Weight-%
Xylenes (o-, m-, p- isomers)	1330-20-7	5 - <10
4,4'-Methylenediphenyl diisocyanate	101-68-8	5 - <10
Urea, N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-	77703-56-1	1 - <3
Ethylbenzene	100-41-4	1 - <3
Benzenesulfonyl isocyanate, 4-methyl-	4083-64-1	0.1- <1
Glycidoxypropyltrimethoxysilane	2530-83-8	0.1- <1

*** Any remaining ingredients are not hazardous

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice

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

Inhalation

Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Call a

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physician. Immediate medical attention is required. Move victim to fresh air. Administer oxygen if breathing is difficult. If breathing is irregular or stopped, administer artificial respiration. Artificial respiration and/or oxygen may be necessary. Oxygen or artificial respiration if needed. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products.

Skin contact	Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If symptoms persist, call a physician. If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water. Immediate medical attention is not required.
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. Call a physician immediately.
Ingestion	Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician. Rinse mouth. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water. Call a physician.
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 None known.

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. Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

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.

Unsuitable extinguishing media No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

5.3. Advice for firefighters

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

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Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Evacuate personnel to safe areas. Do not touch or walk through spilled material. Remove all sources of ignition. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.

6.2. Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment If possible, turn leaking containers so that gas escapes rather than liquid. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Transport to well ventilated area and treat with neutralizing solution: mixture of 80% water and 20% non-ionic surfactant Tergitol TMN-10; or 90% water, 3-8% concentrated ammonia and 2% detergent. Add about 10 parts of neutralizer per part of isocyanate, with mixing. Allow substance to evaporate. Protect from moisture.

Methods for cleaning up Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Do not direct water at spill or source of leak. Decontaminate floor with decontamination solution letting stand for at least 15 minutes. Soak up with inert absorbent material. Dam up. Take precautionary measures against static discharges. Avoid creating dust. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

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. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation, especially in confined areas. Avoid breathing vapors or mists. Use with local exhaust ventilation. All equipment used when handling the product must be grounded. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

7.2. Conditions for safe storage, including any incompatibilities

General hygiene considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Keep away from heat. Protect from moisture. 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)

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Specific Use(s) Adhesives and/or sealants.

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	New Zealand	Australia	European Union
Xylenes (o-, m-, p- isomers) 1330-20-7	TWA: 50 ppm TWA: 217 mg/m ³	80 ppm TWA 350 mg/m ³ TWA 150 ppm STEL 655 mg/m ³ STEL	TWA: 50 ppm TWA: 221 mg/m ³ STEL: 100 ppm STEL: 442 mg/m ³ *
4,4'-Methylenediphenyl diisocyanate 101-68-8	TWA: 0.02 mg/m ³ STEL: 0.07 mg/m ³	0.02 mg/m ³ TWA 0.07 mg/m ³ STEL	-
Ethylbenzene 100-41-4	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 125 ppm STEL: 543 mg/m ³	100 ppm TWA 434 mg/m ³ TWA 125 ppm STEL 543 mg/m ³ STEL	TWA: 100 ppm TWA: 442 mg/m ³ STEL: 200 ppm STEL: 884 mg/m ³ *

Chemical name	ACGIH TLV	NIOSH IDLH	OSHA PEL
Xylenes (o-, m-, p- isomers) 1330-20-7	STEL: 150 ppm TWA: 100 ppm	-	TWA: 100 ppm TWA: 435 mg/m ³
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
Ethylbenzene 100-41-4	TWA: 20 ppm	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³	TWA: 100 ppm TWA: 435 mg/m ³

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

OTHER INFORMATION Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing

8.2. Exposure controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

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,

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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 into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Paste
Color	Gray
Odor	Solvent
Odor threshold	No information available

Property	Values	Remarks • Method
pH	Not applicable	No data available
Melting point / freezing point	No data available	Not applicable
Boiling point / boiling range	No data available	
Flash point	No data available	°C
Evaporation rate	No data available	
Flammability (solid, gas)	No data available	
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	
Vapor density	No data available	
Relative density	1.23	
Water solubility	Insoluble in water	
Solubility(ies)	No data available	
Partition coefficient	No data available	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Kinematic viscosity	No data available	
Dynamic viscosity	No data 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	No information available
Bulk density	No information available
VOC Content (%)	78 g/L

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity None under normal use conditions.

10.2. Chemical stability

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

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Hazardous polymerization Hazardous polymerization may occur.

10.4. Conditions to avoid

Conditions to avoid Keep from any possible contact with water. Extremes of temperature and direct sunlight. Storage near to reactive materials. Heat, flames and sparks. Protect from moisture.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon monoxide. Carbon dioxide (CO₂). Nitrogen oxides (NO_x). 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

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.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Xylenes (o-, m-, p- isomers) 1330-20-7	= 3500 mg/kg (Rat)	> 1700 mg/kg (Rabbit) > 4350 mg/kg (Rabbit)	= >47635 mg/L (Rat) 4 h = >5000 ppm (Rat) 4 h
4,4'-Methylenediphenyl diisocyanate 101-68-8	= 31600 mg/kg (Rat) = 9200 mg/kg (Rat)	LD 50 > 9400 mg/kg (Rabbit) OECD 402	= 1.5 mg/L (Rat) 4 h
Ethylbenzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 1432 mg/L (Rat) 4 h
Benzenesulfonyl isocyanate, 4-methyl- 4083-64-1	= 2234 mg/kg (Rat)	LD 50 (Rat) > 2000 mg/kg OECD 402	> 640 ppm (Rat) 1 h
Glycidoxypropyltrimethoxysilane 2530-83-8	= 8025 mg/kg (rat)	= 4250 mg/kg (Rabbit)	> 5.3 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 retina, Eyes, Skin, liver, Lungs.
Aspiration hazard No information available.
Carcinogenicity The following substance(s) are classified in Annex VI CLP (1272/2008) as carcinogenic.

Chemical name	IARC	China	Japan
Xylenes (o-, m-, p- isomers)	Group 3	-	-
4,4'-Methylenediphenyl diisocyanate	Group 3	-	-
Ethylbenzene	Group 2B	Possibly carcinogenic to humans	Group 2B

IARC (International Agency for *Group 1 - Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans Group 3 - Not*

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Research on Cancer)

Classifiable as to Carcinogenicity in Humans

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity

Product Information

Harmful to aquatic life with long lasting effects. Toxic to aquatic life. Very toxic to aquatic life. Harmful to aquatic life.

Component Information

Data obtained on the component(s) include

Chemical name	Algae/aquatic plants	Fish	Crustacea
Xylenes (o-, m-, p- isomers) 1330-20-7	-	LC50 96 h 2.6 mg/L (Oncorhynchus mykiss) (OECD 203)	EC50 48 h = 3.4 mg/L (water flea)
4,4'-Methylenediphenyl diisocyanate 101-68-8	-	>1000 mg/l (Danio rerio)	-
Urea, N,N''-(methylenedi-4,1-phenylene) bis[N'-butyl- 77703-56-1	EC50 (72h) >100 mg/L Algae (Raphidocelis subcapitata)	LC50 (96h)>250 mg/L Fish (Brachydanio rerio)	EC50 (48h) >100 mg/L Daphnia magna
Ethylbenzene 100-41-4	EC50 72 h 2.6 - 11.3 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h = 4.2 mg/L (Oncorhynchus mykiss semi-static)	EC50: 1.8 - 2.4mg/L (48h, Daphnia magna)
Glycidoxypropyltrimethoxysilane 2530-83-8	-	LC50 (96h) = 55 mg/L (Cyprinus carpio) OECD 203	EC50 (48h) =473 mg/L Daphnia magna

12.2. Persistence and degradability

No information available.

Component Information

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

Method	Exposure time	Value	Results
OECD Test No. 302C: Inherent Biodegradability: Modified MITI Test (II)	28 days	0% biodegradation	Not readily biodegradable

12.3. Bioaccumulative potential

There is no data for this product.

Chemical name	Partition coefficient	Bioconcentration factor (BCF)
Xylenes (o-, m-, p- isomers) 1330-20-7	3.15	15
4,4'-Methylenediphenyl diisocyanate 101-68-8	4.51	200
Ethylbenzene 100-41-4	3.2	15
Benzenesulfonyl isocyanate, 4-methyl- 4083-64-1	0.6	-

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.

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Chemical name	PBT and vPvB assessment
Xylenes (o-, m-, p- isomers) 1330-20-7	The substance is not PBT / vPvB
4,4'-Methylenediphenyl diisocyanate 101-68-8	The substance is not PBT / vPvB
Urea, N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl- 77703-56-1	Further information relevant for the PBT assessment is necessary
Ethylbenzene 100-41-4	The substance is not PBT / vPvB
Benzenesulfonyl isocyanate, 4-methyl- 4083-64-1	The substance is not PBT / vPvB
Glycidoxypropyltrimethoxysilane 2530-83-8	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

Endocrine Disruptor Information

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

Section 14: TRANSPORT INFORMATION

IMDG Not regulated

IATA Not regulated

ADR Not regulated

Section 15: REGULATORY INFORMATION

National Regulations

ERMA Group HSR002679

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

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Revision note Not applicable.

Training Advice No information available

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Disclaimer

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End of Safety Data Sheet