Printing date 04/21/2015

Reviewed on 03/16/2015

1 Identification

- · Product identifier
- · Trade name: Bortek Sanifil Formula 344
- · Article number: 4957
- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier: BORTEK INDUSTRIES INC., 4713 OLD GETTYSBURG ROAD MECHANICSBURG, PA 17055 TELEPHONE: 717-737-7162
- Information department: Product safety department
- Emergency telephone number: SAME AS COMPANY NUMBER

2 Hazard(s) identification

· Classification of the substance or mixture

GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

GHS07

Acute Tox. 4	H312	Harmful in contact with skin.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2A	H319	Causes serious eye irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.

· Label elements

- · GHS label elements
- The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



• Signal word Warning • Hazard statements

- Harmful in contact with skin. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.
- Precautionary statements
 If medical advice is needed, have product container or label at hand.
 Keep out of reach of children.

(Contd. on page 2)

⁻ USA

Printing date 04/21/2015

Reviewed on 03/16/2015

Trade name: Bortek Sanifil Formula 344

(Contd. of page 1)

Read label before use. Avoid breathing dust/fume/gas/mist/vapors/spray Wear protective gloves. Wear protective gloves / protective clothing. Wear eye protection / face protection. Avoid release to the environment. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see on this label). Call a poison center/doctor if you feel unwell. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If on skin: Wash with plenty of water. Collect spillage. Take off contaminated clothing and wash it before reuse. Dispose of contents/container in accordance with local/regional/national/international regulations. · Classification system: · NFPA ratings (scale 0 - 4) Health = 1Fire = 0Reactivity = 0· HMIS-ratings (scale 0 - 4) HEALTH 1 Health = 10 FIRE Fire = 0Reactivity = 0 REACTIVITY 0 · Other hazards Results of PBT and vPvB assessment · PBT: Not applicable. · vPvB: Not applicable. **3** Composition/information on ingredients · Chemical characterization: Mixtures · Description: Mixture of the substances listed below with nonhazardous additions.

· Componer	nts:	
111-76-2	2-butoxyethanol	Prop.%
5989-27-5	(R)-p-mentha-1,8-diene	Prop.%
141-43-5	2-aminoethanol	Prop.%

(Contd. on page 3)

Trade name: Bortek Sanifil Formula 344

(Contd. of page 2)

4 First-aid measures

- · Description of first aid measures
- General information: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation: Supply fresh air and to be sure call for a doctor.
 - In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:
- Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- · After swallowing: Immediately call a doctor.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents:
- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.
 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.
- Reference to other sections
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

(Contd. on page 4)

Trade name: Bortek Sanifil Formula 344

(Contd. of page 3)

7 Handling and storage

- · Handling:
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- · Control parameters

· Com	· Components with limit values that require monitoring at the workplace:		
111-	76-2 2-butoxyethanol		
PEL	Long-term value: 240 mg/m³, 50 ppm Skin		
REL	Long-term value: 24 mg/m³, 5 ppm Skin		
TLV	Long-term value: 97 mg/m³, 20 ppm BEI		
141-	43-5 2-aminoethanol		
PEL	Long-term value: 6 mg/m ³ , 3 ppm		
REL	Short-term value: 15 mg/m³, 6 ppm Long-term value: 8 mg/m³, 3 ppm		
TLV	Short-term value: 15 mg/m³, 6 ppm Long-term value: 7.5 mg/m³, 3 ppm		
· Ingre	edients with biological limit values:		
111-	76-2 2-butoxyethanol		
	200 mg/g creatinine Medium: urine Time: end of shift Parameter: Butoxyacetic acid with hydrolysis		
· Addi	tional information: The lists that were valid during the creation were used as basis.		
· Pers · Gen Keep	osure controls onal protective equipment: eral protective and hygienic measures: o away from foodstuffs, beverages and feed. ediately remove all soiled and contaminated clothing. (Contd. on page 5)		

Printing date 04/21/2015

Reviewed on 03/16/2015

Trade name: Bortek Sanifil Formula 344

(Contd. of page 4)

Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

 Information on basic physical and General Information 	chemical properties	
· Appearance:		
Form:	In water	
Color:	Orange	
· Odor:	Pleasant	
· Odour threshold:	Not determined.	
· pH-value at 20 °C (68 °F):	11.4	
· Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	100 °C (212 °F)	
· Flash point:	Not applicable.	
· Flammability (solid, gaseous):	Not applicable.	
· Ignition temperature:	240 °C (464 °F)	

Printing date 04/21/2015

Reviewed on 03/16/2015

Trade name: Bortek Sanifil Formula 344

	(Contd. of page 5)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	0.7 Vol %
Upper:	10.6 Vol %
· Vapor pressure at 20 °C (68 °F):	23 hPa (17 mm Hg)
· Density at 20 °C (68 °F):	0.95 g/cm³ (7.928 lbs/gal)
 Relative density 	Not determined.
 Vapour density 	Not determined.
 Evaporation rate 	Not determined.
 Solubility in / Miscibility with 	
Water:	Fully miscible.
· Partition coefficient (n-octanol/wate	er): Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
 Other information 	No further relevant information available.

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC5	0 valu	es that are relevant for classification:
		toxyethanol
Oral	LD50	1480 mg/kg (rat)
Dermal	LD50	400 mg/kg (rab)
5989-27	-5 (R)-	p-mentha-1,8-diene
Oral	LD50	4400 mg/kg (rat)
·		

(Contd. on page 7)

USA

Printing date 04/21/2015

Reviewed on 03/16/2015

Trade name: Bortek Sanifil Formula 344

(Contd. of page 6)

- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- Additional toxicological information:
- The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful Irritant

· Carcinogenic categories

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

(Contd. on page 8)

USA

Printing date 04/21/2015

Trade name: Bortek Sanifil Formula 344

(Contd. of page 7)

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

· UN-Number	
· DOT, IMDG, IATA	UN3082
 UN proper shipping name DOT 	Environmentally hazardous substances, liquid, n.o.s (Dipentene)
·IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (DIPENTENE), MARINE POLLUTANT
·IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (DIPENTENE)
 Transport hazard class(es) 	
· DOT, IMDG, IATA	
· Class · Label	9 Miscellaneous dangerous substances and articles
	9
· Packing group · DOT, IMDG, IATA	9 III
Packing group	III
 Packing group DOT, IMDG, IATA Environmental hazards: Marine pollutant: 	III Product contains environmentally hazardou substances: (R)-p-mentha-1,8-diene Yes Symbol (fish and tree)
 Packing group DOT, IMDG, IATA Environmental hazards: Marine pollutant: Special marking (IATA): 	III Product contains environmentally hazardou substances: (R)-p-mentha-1,8-diene Yes Symbol (fish and tree) Symbol (fish and tree)
 Packing group DOT, IMDG, IATA Environmental hazards: Marine pollutant: Special marking (IATA): Special precautions for user 	III Product contains environmentally hazardou substances: (R)-p-mentha-1,8-diene Yes Symbol (fish and tree) Symbol (fish and tree) Warning: Miscellaneous dangerous substances and articles
 Packing group DOT, IMDG, IATA Environmental hazards: Marine pollutant: Special marking (IATA): 	III Product contains environmentally hazardou: substances: (R)-p-mentha-1,8-diene Yes Symbol (fish and tree) Symbol (fish and tree) Warning: Miscellaneous dangerous substances and
 Packing group DOT, IMDG, IATA Environmental hazards: Marine pollutant: Special marking (IATA): Special precautions for user Danger code (Kemler): 	III Product contains environmentally hazardous substances: (R)-p-mentha-1,8-diene Yes Symbol (fish and tree) Symbol (fish and tree) Warning: Miscellaneous dangerous substances and articles 90 F-A,S-F

Printing date 04/21/2015

Reviewed on 03/16/2015

Trade name: Bortek Sanifil Formula 344

(Contd. of page 8)

Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: No limit On cargo aircraft only: No limit
· Remarks:	Special marking with the symbol (fish and tree).
· IMDG	
 Limited quantities (LQ) 	5L
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN3082, Environmentally hazardous substances, liquid, n.o.s. (Dipentene), 9, III

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
 Sara
 Section 355 (extremely hazardous substances):

None of the ingredients is listed.	
· Proposition 65	
· Chemicals known to cause cancer:	
None of the ingredients is listed.	
· Chemicals known to cause reproductive toxicity for females:	
None of the ingredients is listed.	
· Chemicals known to cause reproductive toxicity for males:	
None of the ingredients is listed.	
· Chemicals known to cause developmental toxicity:	
None of the ingredients is listed.	
· Carcinogenic categories	
· EPA (Environmental Protection Agency)	
111-76-2 2-butoxyethanol	NL
 TLV (Threshold Limit Value established by ACGIH) 	
111-76-2 2-butoxyethanol	A3
· NIOSH-Ca (National Institute for Occupational Safety and Health)	
None of the ingredients is listed.	
GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). (Contd. on p	bage 10)

Printing date 04/21/2015

Hazard pictograms

Reviewed on 03/16/2015

Trade name: Bortek Sanifil Formula 344

(Contd. of page 9)

GHS07 GHS09 Signal word Warning · Hazard statements Harmful in contact with skin. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects. · Precautionary statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Avoid breathing dust/fume/gas/mist/vapors/spray Wear protective gloves. Wear protective gloves / protective clothing. Wear eye protection / face protection. Avoid release to the environment. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see on this label). Call a poison center/doctor if you feel unwell. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If on skin: Wash with plenty of water. Collect spillage. Take off contaminated clothing and wash it before reuse. Dispose of contents/container in accordance with local/regional/national/international regulations. · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Date of preparation / last revision 04/21/2015 / -
- Abbreviations and acronyms:
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the
 International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances

(Contd. on page 11)

⁻ USA

Printing date 04/21/2015

Reviewed on 03/16/2015

Trade name: Bortek Sanifil Formula 344

(Contd. of page 10)

USA

CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent Acute Tox. 4: Acute toxicity, Hazard Category 4 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2 Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2