

Prime Shield

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification

1.1. Identification

Product form: Mixture
Product name: Prime Shield
Product code: Self-Etching Gray Primer

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Blue River Coatings
2910 South Nebraska Ave Hastings, NE 68901 - U.S.A.
402-463-3962
buy@bluerivercoatings.com - www.bluerivercoatings.com

1.4. Emergency telephone number

Emergency number: KPA Hazmat & DOT Assistance (888)-429-6287 -North America +1(352)323-3500 - International

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin corrosion/irritation, Category 1B	H314	Causes severe skin burns and eye damage.
Carcinogenicity, Category 1A	H350	May cause cancer.
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336	May cause drowsiness or dizziness.

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H314 - Causes severe skin burns and eye damage.
H336 - May cause drowsiness or dizziness.
H350 - May cause cancer.

Precautionary statements (GHS US)

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash clothing, hands, face thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a poison center or doctor.
P312 - Call a poison center or doctor if you feel unwell.
P321 - Specific treatment (see Call a POISON CENTER/doctor if you feel unwell. on this label)
P363 - Wash contaminated clothing before reuse.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.

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P501 - Dispose of contents/container to Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Ethyl Acetate	(CAS-No.) 141-78-6	10 – 15	Flam. Liq. 2, H225 STOT SE 3, H336
n-Butyl Acetate	(CAS-No.) 123-86-4	10 – 15	Flam. Liq. 3, H226 STOT SE 3, H336
Titanium Dioxide	(CAS-No.) 13463-67-7	10 – 15	Carc. 2, H351
Ethyl 3-ethoxypropionate	(CAS-No.) 763-69-9	5 – 10	Flam. Liq. 3, H226
1-Butanol	(CAS-No.) 71-36-3	1 – 5	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336
2-Propanol	(CAS-No.) 67-63-0	1 – 5	Flam. Liq. 2, H225 STOT SE 3, H336
Ethanol	(CAS-No.) 64-17-5	1 – 5	Flam. Liq. 2, H225 Carc. 1A, H350
Xylene	(CAS-No.) 1330-20-7	1 – 5	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315
Phosphoric Acid	(CAS-No.) 7664-38-2	1 – 5	Skin Corr. 1B, H314

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a physician immediately.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
- First-aid measures after skin contact : Soap may be used. Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
- First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Call a physician immediately.
- First-aid measures after ingestion : Do not induce vomiting. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects : May cause drowsiness or dizziness. Irritation of the respiratory tract. Irritation of the eye tissue. Irritation of the nasal mucous membranes. Swallowing this material will result in serious health hazard, potentially leading to collapse and death. Swallowing a small quantity of this material presents some health hazard. Harmful if inhaled. May be harmful in contact with skin. May cause an allergic skin reaction. Causes serious eye damage. May be fatal if swallowed and enters airways. Caustic burns/corrosion of the skin. Corrosion of the eye tissue.
- Symptoms/effects after inhalation : Central nervous system depression. Inhalation may cause irritation (cough, short breathing, difficulty in breathing). Irritation of the nasal mucous membranes. Irritation of the respiratory tract.
- Symptoms/effects after skin contact : Irritation. Symptoms similar to those listed under inhalation. Symptoms similar to those listed under ingestion. Prolonged or repeated contact may cause skin to become dry. Burns.
- Symptoms/effects after eye contact : Serious damage to eyes. Causes eye irritation.
- Symptoms/effects after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard. Central nervous system depression. Respiratory difficulties. Burns.

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4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapour.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.
Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Gray Self Etching Primer

No additional information available

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Ethyl 3-ethoxypropionate (763-69-9)	
No additional information available	
1-Butanol (71-36-3)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (ppm)	50 ppm
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) (ppm)	100 ppm
n-Butyl Acetate (123-86-4)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (ppm)	150 ppm (n-Butyl acetate; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH STEL (ppm)	200 ppm (n-Butyl acetate; USA; Short time value; TLV - Adopted Value)
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) (mg/m ³)	150 mg/m ³
OSHA PEL (STEL) (mg/m ³)	200 mg/m ³
2-Propanol (67-63-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	2-Propanol
ACGIH TWA (ppm)	200 ppm
ACGIH STEL (ppm)	400 ppm
Remark (ACGIH)	Eye & URT irr; CNS impair
USA - OSHA - Occupational Exposure Limits	
Local name	Isopropyl alcohol
OSHA PEL (TWA) (mg/m ³)	980 mg/m ³
OSHA PEL (TWA) (ppm)	400 ppm
Ethanol (64-17-5)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Ethanol
ACGIH STEL (ppm)	1000 ppm
Remark (ACGIH)	URT irr
USA - OSHA - Occupational Exposure Limits	
Local name	Ethyl alcohol (Ethanol)
OSHA PEL (TWA) (mg/m ³)	1900 mg/m ³
OSHA PEL (TWA) (ppm)	1000 ppm
Ethyl Acetate (141-78-6)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Ethyl acetate
ACGIH TWA (ppm)	400 ppm
Remark (ACGIH)	URT & eye irr
USA - OSHA - Occupational Exposure Limits	
Local name	Ethyl acetate
OSHA PEL (TWA) (mg/m ³)	1400 mg/m ³
OSHA PEL (TWA) (ppm)	400 ppm
Xylene (1330-20-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Xylene
ACGIH TWA (ppm)	100 ppm
ACGIH STEL (ppm)	150 ppm
Remark (ACGIH)	URT & eye irr; CNS impair
USA - OSHA - Occupational Exposure Limits	
Local name	Xylenes (o-, m-, p-isomers)
OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
OSHA PEL (TWA) (ppm)	100 ppm

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Titanium Dioxide (13463-67-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Titanium dioxide
ACGIH TWA (mg/m ³)	10 mg/m ³ (Titanium dioxide; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Remark (ACGIH)	LRT irr; A3
USA - OSHA - Occupational Exposure Limits	
Local name	Titanium dioxide (Total dust)
OSHA PEL (TWA) (mg/m ³)	15 mg/m ³
Phosphoric Acid (7664-38-2)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Phosphoric acid
ACGIH TWA (mg/m ³)	1 mg/m ³
ACGIH STEL (mg/m ³)	3 mg/m ³
Remark (ACGIH)	URT, eye, & skin irr
USA - OSHA - Occupational Exposure Limits	
Local name	Phosphoric acid
OSHA PEL (TWA) (mg/m ³)	1 mg/m ³

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
 Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Type	Use	Characteristics
Face shield		

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Device	Filter type	Condition
Reusable half mask		

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
 Colour : Mixture contains one or more component(s) which have the following colour(s): Colourless Colourless to light yellow Pure substance: white Unpurified: coloured

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Odour	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Fruity odour Pleasant odour Irritating/pungent odour Alcohol odour Sweet odour Stuffy odour Mild odour Aromatic odour Odourless
Odour threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 69 °F
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 9.59 lb/gal
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Ethyl 3-ethoxypropionate (763-69-9)

LD50 oral rat	5000 mg/kg (Rat)
LD50 dermal rabbit	4076 mg/kg (Rabbit)

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1-Butanol (71-36-3)	
LD50 oral rat	790 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature; 2293 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	3400 mg/kg (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity; 3430 mg/kg bodyweight; Rabbit)
LC50 Inhalation - Rat	24 mg/l/4h (Rat)
LC50 Inhalation - Rat [ppm]	8000 ppm/4h (Rat)

n-Butyl Acetate (123-86-4)	
LD50 oral rat	10770 mg/kg (Rat; Equivalent or similar to OECD 423; Experimental value; 12789 mg/kg; Rat; Equivalent or similar to OECD 423; Experimental value; 10760 mg/kg bodyweight; Rat)
LD50 dermal rabbit	> 17600 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; >14112 mg/kg bodyweight; Rabbit)

2-Propanol (67-63-0)	
LD50 dermal rabbit	12870 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 16.4; Rabbit)
LC50 Inhalation - Rat	73 mg/l/4h (Rat)

Ethanol (64-17-5)	
LD50 oral rat	10740 mg/kg bodyweight (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit; Literature study)

Ethyl Acetate (141-78-6)	
LD50 oral rat	5620 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; 10200 mg/kg bodyweight; Rat)
LD50 dermal rabbit	> 18000 mg/kg (Rabbit; Experimental value; 24 hour cuff method; >20000 mg/kg bodyweight; Rabbit)
LC50 Inhalation - Rat	70.56 mg/l/4h (Rat)
LC50 Inhalation - Rat [ppm]	19600 ppm/4h (Rat)

Xylene (1330-20-7)	
LD50 oral rat	3523 – 8600 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 3523 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value; >4000 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 4200 mg/kg bodyweight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity)
LC50 Inhalation - Rat	29 mg/l/4h (Rat; Experimental value; 27.57 mg/l/4h; Rat; Experimental value)

Titanium Dioxide (13463-67-7)	
LD50 oral rat	> 10000 mg/kg (Rat; OECD 425: Acute Oral Toxicity: Up-and-Down Procedure; Experimental value; > 5000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Literature study)
LC50 Inhalation - Rat	> 6.8 mg/l/4h (Rat; Experimental value)

Phosphoric Acid (7664-38-2)	
LD50 oral rat	2600 mg/kg bodyweight (Rat; Equivalent or similar to OECD 423; Experimental value)
LD50 dermal rabbit	2740 mg/kg bodyweight (Rabbit; No reliable data available)

Skin corrosion/irritation : Causes severe skin burns.
 Serious eye damage/irritation : Assumed to cause serious eye damage
 Respiratory or skin sensitisation : Not classified
 Germ cell mutagenicity : Not classified
 Carcinogenicity : May cause cancer.

2-Propanol (67-63-0)	
IARC group	3 - Not classifiable

Ethanol (64-17-5)	
IARC group	1 - Carcinogenic to humans

Xylene (1330-20-7)	
IARC group	3 - Not classifiable

Titanium Dioxide (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified

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STOT-single exposure : May cause drowsiness or dizziness.

1-Butanol (71-36-3)	
STOT-single exposure	May cause respiratory irritation. May cause drowsiness or dizziness.
n-Butyl Acetate (123-86-4)	
STOT-single exposure	May cause drowsiness or dizziness.
2-Propanol (67-63-0)	
STOT-single exposure	May cause drowsiness or dizziness.
Ethyl Acetate (141-78-6)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Symptoms/effects : May cause drowsiness or dizziness. Irritation of the respiratory tract. Irritation of the eye tissue. Irritation of the nasal mucous membranes. Swallowing this material will result in serious health hazard, potentially leading to collapse and death. Swallowing a small quantity of this material presents some health hazard. Harmful if inhaled. May be harmful in contact with skin. May cause an allergic skin reaction. Causes serious eye damage. May be fatal if swallowed and enters airways. Caustic burns/corrosion of the skin. Corrosion of the eye tissue.

Symptoms/effects after inhalation : Central nervous system depression. Inhalation may cause irritation (cough, short breathing, difficulty in breathing). Irritation of the nasal mucous membranes. Irritation of the respiratory tract.

Symptoms/effects after skin contact : Irritation. Symptoms similar to those listed under inhalation. Symptoms similar to those listed under ingestion. Prolonged or repeated contact may cause skin to become dry. Burns.

Symptoms/effects after eye contact : Serious damage to eyes. Causes eye irritation.

Symptoms/effects after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard. Central nervous system depression. Respiratory difficulties. Burns.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. Before neutralisation, the product may represent a danger to aquatic organisms.

Ethyl 3-ethoxypropionate (763-69-9)	
LC50 fish 1	143.63 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 1	123.4 mg/l (LC50; 96 h)
LC50 fish 2	149.83 mg/l (LC50; 96 h; Lepomis macrochirus)
1-Butanol (71-36-3)	
LC50 fish 1	1376 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Static system; Fresh water; Experimental value)
EC50 Daphnia 1	1328 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
n-Butyl Acetate (123-86-4)	
LC50 fish 1	18 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
2-Propanol (67-63-0)	
LC50 fish 2	9640 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 2	13299 mg/l (EC50; Other; 48 h; Daphnia magna)
Threshold limit algae 1	> 1000 mg/l (EC50; UBA; 72 h; Scenedesmus subspicatus)

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Ethanol (64-17-5)	
LC50 fish 2	13000 mg/l (LC50; 96 h; <i>Salmo gairdneri</i> ; Static system; Fresh water)
Ethyl Acetate (141-78-6)	
LC50 fish 2	230 mg/l (LC50; US EPA; 96 h; <i>Pimephales promelas</i> ; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 2	154 mg/l (EC50; 48 h; <i>Daphnia magna</i>)
Xylene (1330-20-7)	
LC50 fish 1	2.6 – 8.4 mg/l (LC50)
EC50 Daphnia 1	1.4 – 7.4 mg/l (EC50; 48 h)
EC50 other aquatic organisms 1	4.36 mg/l
Titanium Dioxide (13463-67-7)	
EC50 Daphnia 1	> 100 mg/l (LC50; Equivalent or similar to OECD 202; 48 h; <i>Daphnia magna</i> ; Static system; Fresh water; Weight of evidence)
Threshold limit algae 1	61 mg/l (EC50; Other; 72 h; <i>Pseudokirchneriella subcapitata</i> ; Static system; Fresh water; Experimental value)
Phosphoric Acid (7664-38-2)	
EC50 Daphnia 1	> 100 mg/l (EC50; OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test; 48 h; <i>Daphnia magna</i> ; Static system; Fresh water; Experimental value)
EC50 Daphnia 2	56 mg/l (NOEC; OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test; 48 h; <i>Daphnia magna</i> ; Static system; Fresh water; Experimental value)
Threshold limit algae 1	> 100 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; <i>Desmodesmus subspicatus</i> ; Static system; Fresh water; Experimental value)
Threshold limit algae 2	100 mg/l (NOEC; OECD 201: Alga, Growth Inhibition Test; 72 h; <i>Desmodesmus subspicatus</i> ; Static system; Fresh water; Experimental value)

12.2. Persistence and degradability

Ethyl 3-ethoxypropionate (763-69-9)	
Persistence and degradability	Readily biodegradable in water.
1-Butanol (71-36-3)	
Persistence and degradability	Readily biodegradable in water. Low potential for adsorption in soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	1.1 – 1.92 g O ₂ /g substance
Chemical oxygen demand (COD)	2.46 g O ₂ /g substance
ThOD	2.59 g O ₂ /g substance
BOD (% of ThOD)	0.33 – 0.79
n-Butyl Acetate (123-86-4)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.15 – 0.5 g O ₂ /g substance
Chemical oxygen demand (COD)	2.32 g O ₂ /g substance
ThOD	2.21 g O ₂ /g substance
2-Propanol (67-63-0)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.19 g O ₂ /g substance
Chemical oxygen demand (COD)	2.23 g O ₂ /g substance
ThOD	2.4 g O ₂ /g substance
Ethanol (64-17-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	0.8 – 0.967 g O ₂ /g substance
Chemical oxygen demand (COD)	1.7 g O ₂ /g substance
ThOD	2.1 g O ₂ /g substance
Ethyl Acetate (141-78-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	0.293 g O ₂ /g substance
Chemical oxygen demand (COD)	1.69 g O ₂ /g substance

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Ethyl Acetate (141-78-6)	
ThOD	1.82 g O ₂ /g substance
Xylene (1330-20-7)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available. Photolysis in the air.
Biochemical oxygen demand (BOD)	1.40 – 2.53 g O ₂ /g substance
Chemical oxygen demand (COD)	2.56 – 2.91 g O ₂ /g substance
ThOD	3.1 g O ₂ /g substance
BOD (% of ThOD)	0.44 – 0.816
Titanium Dioxide (13463-67-7)	
Persistence and degradability	Biodegradability: not applicable. Low potential for mobility in soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
Phosphoric Acid (7664-38-2)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

Ethyl 3-ethoxypropionate (763-69-9)	
Partition coefficient n-octanol/water (Log Pow)	1.25 (Calculated)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
1-Butanol (71-36-3)	
BCF other aquatic organisms 1	3.16 (BCF; BCFWIN)
Partition coefficient n-octanol/water (Log Pow)	1 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
n-Butyl Acetate (123-86-4)	
BCF fish 1	14 (BCF)
Partition coefficient n-octanol/water (Log Pow)	2.3 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
2-Propanol (67-63-0)	
Partition coefficient n-octanol/water (Log Pow)	0.05 (Weight of evidence approach; Other; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Ethanol (64-17-5)	
Partition coefficient n-octanol/water (Log Pow)	-0.35 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 24 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Ethyl Acetate (141-78-6)	
BCF fish 1	30 (BCF; 3 days; Leuciscus idus; Static system)
Partition coefficient n-octanol/water (Log Pow)	0.68 (Experimental value; EPA OPPTS 830.7560; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Xylene (1330-20-7)	
BCF fish 1	14.1 – 24 (BCF)
BCF fish 2	7 – 26 (BCF; 8 weeks; Oncorhynchus mykiss; Flow-through system; Fresh water)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Conclusion by analogy; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Titanium Dioxide (13463-67-7)	
Bioaccumulative potential	Not bioaccumulative.
Phosphoric Acid (7664-38-2)	
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

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1-Butanol (71-36-3)	
Surface tension	0.025 N/m (20 °C)
Partition coefficient n-octanol/water (Log Koc)	Koc,PCKOCWIN v1.66; 2.443; Calculated value; log Koc; PCKOCWIN v1.66; 0.388; Calculated value
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
n-Butyl Acetate (123-86-4)	
Surface tension	0.0613 N/m (20 °C; 1 g/l)
Partition coefficient n-octanol/water (Log Koc)	log Koc, SRC PCKOCWIN v2.0; 1.268 - 1.844; QSAR
2-Propanol (67-63-0)	
Surface tension	0.021 N/m (25 °C)
Ethanol (64-17-5)	
Surface tension	0.0245 N/m (20 °C)
Ethyl Acetate (141-78-6)	
Surface tension	0.024 N/m (20 °C)
Xylene (1330-20-7)	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

- Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
 Additional information : Flammable vapours may accumulate in the container.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

- Transport document description : UN1263 Paint (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base), 3, II
 UN-No.(DOT) : UN1263
 Proper Shipping Name (DOT) : Paint
 including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base
 Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
 Packing group (DOT) : II - Medium Danger
 Hazard labels (DOT) : 3 - Flammable liquid



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 173
 DOT Packaging Bulk (49 CFR 173.xxx) : 242

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- DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.
 B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.
 IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
 T2 - 1.5 178.274(d)(2) Normal..... 178.275(d)(3)
 TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
 TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
- DOT Packaging Exceptions (49 CFR 173.xxx) : 150
- DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
- DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L
- DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
- Other information : No supplementary information available.

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Ethyl 3-ethoxypropionate (763-69-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
1-Butanol (71-36-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb
n-Butyl Acetate (123-86-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporting requirements of the United States SARA Section 313	
CERCLA RQ	5000 lb
2-Propanol (67-63-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
Ethanol (64-17-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

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Ethyl Acetate (141-78-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporting requirements of the United States SARA Section 313	
CERCLA RQ	5000 lb
Xylene (1330-20-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	100 lb
Titanium Dioxide (13463-67-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Phosphoric Acid (7664-38-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporting requirements of the United States SARA Section 313	
CERCLA RQ	5000 lb

15.2. International regulations

CANADA

2-Propanol (67-63-0)	
Listed on the Canadian DSL (Domestic Substances List)	
Ethanol (64-17-5)	
Listed on the Canadian DSL (Domestic Substances List)	
Xylene (1330-20-7)	
Listed on the Canadian DSL (Domestic Substances List)	

EU-Regulations

National regulations

Ethanol (64-17-5)	
Listed on IARC (International Agency for Research on Cancer)	
Titanium Dioxide (13463-67-7)	
Listed on IARC (International Agency for Research on Cancer)	

15.3. US State regulations

Component	State or local regulations
Ethyl Acetate(141-78-6)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
n-Butyl Acetate(123-86-4)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
1-Butanol(71-36-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
2-Propanol(67-63-0)	U.S. - New Jersey - Right to Know Hazardous Substance List
Ethanol(64-17-5)	U.S. - New Jersey - Right to Know Hazardous Substance List
Xylene (1330-20-7)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Titanium Dioxide(13463-67-7)	U.S. - New Jersey - Right to Know Hazardous Substance List

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Component	State or local regulations
Phosphoric Acid(7664-38-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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Full text of H-statements:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
H351	Suspected of causing cancer.

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.