

SECTION 1: Identification
1.1. Identification

Product form : Mixture
 Product name : MicroVue Klotho EIA
 Product code : 8050

1.2. Recommended use and restrictions on use

Recommended use : For research use only.
 Restrictions on use : Restricted to professional users.

1.3. Supplier
Manufacturer

Quidel Corporation
 2005 East State Street, Suite 100
 Athens, 45701 - USA
 T 1.800.874.1517 - F 1.740.592.9820
gehs@quidel.com - quidel.com




1.4. Emergency telephone number




Emergency number : 1.866.519.4752

SECTION 2: Hazard(s) identification
2.1. Classification of the substance or mixture
GHS US classification

Components	GHS US classification
Stop Solution	Skin Irrit. 2, H315 Eye Dam. 1, H318
20X Wash Solution Concentrate (50 mL)	Skin Sens. 1, H317
Hydrating Reagent (25 mL)	Skin Sens. 1, H317
TMB Substrate	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Dam. 1, H318 Repr. 1B, H360

2.2. GHS Label elements, including precautionary statements
GHS US labeling

Components	Pictograms	Signal word	Hazard statements	Precautionary statements
TMB Substrate (12 mL)	  	Danger	H225 - Highly flammable liquid and vapor H315 - Causes skin irritation H318 - Causes serious eye damage H360 - May damage fertility or the unborn child	P264 - Wash hands thoroughly after handling P280 - Wear lab coat, safety glasses, and gloves P302+P352 - If on skin: Wash skin thoroughly with mild soap and water 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. P321 - Specific treatment: Seek medical attention if ill effect develops P501 - Dispose of contents/container: Dispose in a safe manner in accordance with local/national regulations

Components	Pictograms	Signal word	Hazard statements	Precautionary statements
Stop Solution (12 mL)		Danger	H315 - Causes skin irritation H318 - Causes serious eye damage	P260 - Do not breathe mist, vapours, or spray. P264 - Wash hands thoroughly after handling P280 - Wear lab coat, safety glasses, and gloves P302+P352 - If on skin: Wash skin thoroughly with mild soap and water P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P321 - Specific treatment: Seek medical attention if ill effect develops P332+P313 - If skin irritation occurs: Get medical advice/attention.
20X Wash Solution Concentrate (50 mL)		Warning	H317 - May cause an allergic skin reaction	P280 - Wear lab coat, safety glasses, and gloves P302+P352 - If on skin: Wash skin thoroughly with mild soap and water P321 - Specific treatment: Seek medical attention if ill effect develops
Hydrating Reagent (25 mL)		Warning	H317 - May cause an allergic skin reaction	P280 - Wear lab coat, safety glasses, and gloves P302+P352 - If on skin: Wash skin thoroughly with mild soap and water P321 - Specific treatment: Seek medical attention if ill effect develops

SECTION 3: Composition/Information on ingredients

Name	Chemical name	CAS #	%	GHS US classification
Stop Solution (12 mL)	Hydrochloric acid ... %		1 – 5	Skin Corr. 1B, H314 STOT SE 3, H335
20X Wash Solution Concentrate (50 mL)	Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	55965-84-9	< 0.1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Specimen Diluent (50 mL)	Methylisothiazolone	26172-54-3	< 1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Corr. 1A, H314 Skin Sens. 1A, H317 Aquatic Acute 2, H401 Aquatic Chronic 1, H410
Hydrating Reagent (25 mL)	Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	55965-84-9 -	< 0.1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Name	Chemical name	CAS #	%	GHS US classification
TMB Substrate (12 mL)	1-ethylpyrrolidin-2-one	2687-91-4	1 – 5	Flam. Liq. 4, H227 Eye Dam. 1, H318 Repr. 1B, H360
	1-methyl-2-pyrrolidone	872-50-4	1 – 10	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 1B, H360 STOT SE 3, H335
	Acetone	67-64-1	1 – 10	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336

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	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.

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

Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.
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.
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5.2. Specific hazards arising from the chemical

Fire hazard	: Highly flammable liquid and vapor.
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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.
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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. Avoid breathing dust/fume/gas/mist/vapors/spray.
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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".
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6.2. Environmental precautions

Environmental precautions	: Avoid release to the environment. Notify authorities if product enters sewers or public waters.
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6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
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.
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 vapors 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. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.
- Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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

Hydrochloric acid ... %		
OSHA	OSHA PEL (Ceiling) (mg/m ³)	7 mg/m ³
OSHA	OSHA PEL (Ceiling) (ppm)	5 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Acetone (67-64-1)		
ACGIH	ACGIH TWA (ppm)	250 ppm
ACGIH	ACGIH STEL (ppm)	500 ppm
1-methyl-2-pyrrolidone (872-50-4)		
ACGIH	Biological Exposure Indices (BEI)	100 mg/l Parameter: 5-Hydroxy-N-methyl-2-pyrrolidone - Medium: urine - Sampling time: End of shift

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
Materials for protective clothing:

Lab coat

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

Personal protective equipment symbol(s):

Other information:

Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	: Liquid
Appearance	: EIA Kit.
Color	: No data available
Odor	: No data available
Odor threshold	: No data available
pH	: Stop Solution (<1)
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
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
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

The product is non-reactive under normal conditions of use, storage and transport. **TMB Substrate:** Flammable liquid and vapor.

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

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

Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9)	
LD50 oral rat	53 mg/kg (Rat, Literature study)
ATE US (oral)	53 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h

Methylisothiazolone (26172-54-3)	
LD50 oral rat	175 mg/kg
LD50 dermal rat	246 mg/kg
LC50 inhalation rat (mg/l)	0.11 mg/l 4 hr
ATE US (oral)	175 mg/kg body weight
ATE US (dermal)	246 mg/kg body weight
ATE US (gases)	100 ppmV/4h
ATE US (vapors)	0.11 mg/l/4h
ATE US (dust, mist)	0.11 mg/l/4h

1-ethylpyrrolidin-2-one (2687-91-4)	
LD50 oral rat	3200 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal)
LC50 inhalation rat (mg/l)	> 5.1 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
ATE US (oral)	3200 mg/kg body weight

Acetone (67-64-1)	
LD50 oral rat	5800 mg/kg (Equivalent or similar to OECD 401, Rat, Female, Experimental value)
LD50 dermal rabbit	20000 mg/kg (Equivalent or similar to OECD 402, Rabbit, Male, Experimental value)
LC50 inhalation rat (mg/l)	76 mg/l (Other, 4 h, Rat, Female, Experimental value)
ATE US (oral)	5800 mg/kg body weight
ATE US (dermal)	20000 mg/kg body weight
ATE US (vapors)	76 mg/l/4h
ATE US (dust, mist)	76 mg/l/4h

1-methyl-2-pyrrolidone (872-50-4)	
LD50 oral rat	4150 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 5000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 inhalation rat (mg/l)	> 5.1 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
ATE US (oral)	4150 mg/kg body weight

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: May damage fertility or the unborn child.
STOT-single exposure	: Not classified

Hydrochloric acid ... %	
STOT-single exposure	May cause respiratory irritation.

Acetone (67-64-1)	
STOT-single exposure	May cause drowsiness or dizziness.

1-methyl-2-pyrrolidone (872-50-4)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life.

Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9)	
LC50 fish 1	0.28 mg/l (96 h, <i>Lepomis macrochirus</i> , Literature)
EC50 Daphnia 1	0.16 mg/l (48 h, <i>Daphnia magna</i> , Literature)
Methylisothiazolone (26172-54-3)	
LC50 fish 1	4.77 mg/l <i>Oncorhynchus mykiss</i> - 96 hr
LC50 other aquatic organisms 1	2.33 mg/l <i>Daphnia magna</i> (Water Flea) - 48 hr
1-ethylpyrrolidin-2-one (2687-91-4)	
LC50 fish 1	> 465 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, <i>Brachydanio rerio</i> , Static system, Fresh water, Experimental value, Nominal concentration)
EC50 Daphnia 1	> 104 mg/l (OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test, 48 h, <i>Daphnia magna</i> , Static system, Fresh water, Experimental value, Locomotor effect)
Acetone (67-64-1)	
LC50 fish 1	5540 mg/l (EU Method C.1, 96 h, <i>Salmo gairdneri</i> , Static system, Fresh water, Experimental value)
1-methyl-2-pyrrolidone (872-50-4)	
LC50 fish 1	> 500 mg/l (96 h, <i>Oncorhynchus mykiss</i> , Static system, Fresh water, Experimental value)
EC50 Daphnia 1	1107 mg/l (EPA 660/3 - 75/009, 96 h, <i>Palaemonetes vulgaris</i> , Static system, Salt water, Experimental value)
EC50 Daphnia 2	> 1000 mg/l (DIN 38412-11, 24 h, <i>Daphnia magna</i> , Static system, Fresh water, Experimental value)

12.2. Persistence and degradability

Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9)	
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
Hydrochloric acid ... %	
Persistence and degradability	Biodegradability: not applicable.
1-ethylpyrrolidin-2-one (2687-91-4)	
Persistence and degradability	Readily biodegradable in water.
Acetone (67-64-1)	
Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.43 g O ₂ /g substance
Chemical oxygen demand (COD)	1.92 g O ₂ /g substance
ThOD	2.2 g O ₂ /g substance
BOD (% of ThOD)	0.872 (20 day(s), Literature study)
1-methyl-2-pyrrolidone (872-50-4)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.07 g O ₂ /g substance
Chemical oxygen demand (COD)	1.56 g O ₂ /g substance

1-methyl-2-pyrrolidone (872-50-4)	
ThOD	1.9 g O ₂ /g substance
BOD (% of ThOD)	0.56

12.3. Bioaccumulative potential

Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9)	
Bioaccumulative potential	Not established.

Hydrochloric acid ... %	
Bioaccumulative potential	Does not contain bioaccumulative component(s).

1-ethylpyrrolidin-2-one (2687-91-4)	
Partition coefficient n-octanol/water (Log Pow)	-0.2 (Experimental value, EU Method A.8: Partition Coefficient, 23 °C)
Bioaccumulative potential	Not bioaccumulative.

Acetone (67-64-1)	
BCF fish 1	0.69 (Pisces)
BCF other aquatic organisms 1	3 (BCFWIN, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	-0.24 (Test data)
Bioaccumulative potential	Not bioaccumulative.

1-methyl-2-pyrrolidone (872-50-4)	
BCF other aquatic organisms 1	3 (Calculated value)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9)	
Ecology - soil	No (test)data on mobility of the components available.

Hydrochloric acid ... %	
Ecology - soil	No (test)data on mobility of the components available. May be harmful to plant growth, blooming and fruit formation.

1-ethylpyrrolidin-2-one (2687-91-4)	
Surface tension	0.069 N/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Partition coefficient n-octanol/water (Log Koc)	1.6 (log Koc, PCKOCWIN v1.66, Calculated value)
Ecology - soil	Low potential for adsorption in soil. Highly mobile in soil.

Acetone (67-64-1)	
Surface tension	0.0237 N/m
Ecology - soil	No (test)data on mobility of the substance available.

1-methyl-2-pyrrolidone (872-50-4)	
Surface tension	0.407 N/m
Partition coefficient n-octanol/water (Log Koc)	1.32 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations
13.1. Disposal methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Flammable vapors may accumulate in the container.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)	Not regulated
Transport by sea	Not regulated
Air transport	Not regulated

SECTION 15: Regulatory information
15.1. US Federal regulations

Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9)	
Not listed on the United States TSCA (Toxic Substances Control Act) inventory	
Methylisothiazolone (26172-54-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
1-ethylpyrrolidin-2-one (2687-91-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	SP - SP - indicates a substance that is identified in a proposed Significant New Use Rule.
Acetone (67-64-1)	
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
1-methyl-2-pyrrolidone (872-50-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	R - R - indicates a substance that is the subject of a TSCA section 6 risk management rule.

15.2. International regulations
CANADA

Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9)	
Listed on the Canadian DSL (Domestic Substances List)	
Hydrochloric acid ... %	
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)	
Methylisothiazolone (26172-54-3)	
Listed on the Canadian DSL (Domestic Substances List)	
1-ethylpyrrolidin-2-one (2687-91-4)	
Listed on the Canadian DSL (Domestic Substances List)	
Acetone (67-64-1)	
Listed on the Canadian DSL (Domestic Substances List)	
1-methyl-2-pyrrolidone (872-50-4)	
Listed on the Canadian DSL (Domestic Substances List)	

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

⚠ WARNING: This product can expose you to 1-methyl-2-pyrrolidone, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

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

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.