





































**Aquatic plants: Based on our knowledge of the composition information:**

*TETRAETHYL ORTHOSILICATE (78-10-4):*

EC 50 (Algae (Pseudokirchneriella subcapitata); 72 h ; Static) : > 22 mg/l ; Method: OECD 201

NOEC (growth rate) (Algae (Pseudokirchneriella subcapitata); 72 h ; Static) : >= 22 mg/l ; Method: OECD 201

*TITANIUM TETRABUTANOLATE (5593-70-4):*

EC 50 (Green algae (Scenedesmus subspicatus); 72 h ; Static) : > 820 mg/l ; Method: OECD 201 ; Results obtained on a similar product.

NOEC (growth rate) (Green algae (Scenedesmus subspicatus); 72 h ; Static) : 201 mg/l ; Method: OECD 201 ; Results obtained on a similar product.

*XYLENE (1330-20-7):*

ErC50 (Algae; 48 h) : 1.3 mg/l ; Method: OECD 201 ; Results obtained on a similar product.

NOEC (growth rate) (Algae; 72 h) : 0.44 mg/l ; Method: OECD 201 ; Results obtained on a similar product.

*BUTAN-1-OL (71-36-3):*

NOEC (growth rate) (Algae (Pseudokirchneriella subcapitata); 96 h ; Static) : 129 mg/l ; Method: OECD 201

EC 50 (Algae (Pseudokirchneriella subcapitata); 96 h ; Static) : 225 mg/l ; Method: OECD 201

*ETHYLBENZENE (100-41-4):*

EC 50 (Algae (Pseudokirchneriella subcapitata); 96 h) : 3.6 mg/l ; Method: According to a standardised method. ; Fresh water Based on cell number

NOEC (Algae (Pseudokirchneriella subcapitata); 96 h) : 3.4 mg/l ; Method: According to a standardised method. ; Fresh water Based on cell number

EC 50 (Skeletonema costatum; 96 h) : 7.7 mg/l ; Method: According to a standardised method. ; marine water Based on cell number

NOEC (Skeletonema costatum; 96 h) : 4.5 mg/l ; Method: According to a standardised method. ; marine water Based on cell number

*TOLUENE (108-88-3):*

NOEC (biomass) (Skeletonema costatum; 72 h ; Static) : 10 mg/l ; Method: OECD 201

*N-HEXANE (110-54-3):*

EL50 (Algae; 48 h) : 9.285 mg/l ; Structure-activity relationship (SAR)

NOEL (Algae; 48 h) : 2.077 mg/l ; Structure-activity relationship (SAR)

**Toxicity to microorganisms:** No data available.

**Chronic Toxicity:**

**Fish: Based on our knowledge of the composition information:**

*XYLENE (1330-20-7):*

NOEC (Oncorhynchus mykiss; 56 d) : 1.3 mg/l ; Results obtained on a similar product.

*TOLUENE (108-88-3):*

NOEC (growth rate) (Coho salmon; 40 d ; Flow through) : 1.4 mg/l

*N-HEXANE (110-54-3):*

NOELR (Fish; 28 d) : 2.8 mg/l ; Method: QSAR ; Fresh water

**Aquatic Invertebrates: Based on our knowledge of the composition information:**

*TITANIUM TETRABUTANOLATE (5593-70-4):*

NOEC (Water flea (Daphnia magna); 21 d ; semi-static) : 4 mg/l ; Results obtained on a similar product.

*XYLENE (1330-20-7):*

NOEC (Water flea (Ceriodaphnia dubia); 7 d) : 0.96 mg/l ; Method: According to a standardised method. ;

Results obtained on a similar product.

*BUTAN-1-OL (71-36-3):*

NOEC (Water flea (Daphnia magna); 21 d ; semi-static) : 4.1 mg/l ; Method: OECD 211

*ETHYLBENZENE (100-41-4):*

NOEC (Water flea (Ceriodaphnia dubia); 7 d) : 0.96 mg/l ; Method: According to a standardised method. ;  
Fresh water

*TOLUENE (108-88-3):*

NOEC (Water flea (Ceriodaphnia dubia); 7 d ; semi-static) : 0.74 mg/l ; Method: According to a standardised method.

*N-HEXANE (110-54-3):*

NOELR (Water flea (Daphnia magna); 21 d) : 4.888 mg/l ; Method: QSAR ; Fresh water

## **12.2 Persistence and Degradability:**

### **Biodegradation: Based on our knowledge of the composition information:**

*TETRAETHYL ORTHOSILICATE (78-10-4):*

98 % (activated sludge, domestic (adaptation not specified) ; 28 d ; Dissolved organic carbon (DOC)) ;  
Method: According to a standardised method. ; Readily biodegradable

*TITANIUM TETRABUTANOLATE (5593-70-4):*

92 % (sewage, domestic, non-adapted ; 20 d ; Oxygen depletion) ; Method: According to a standardised method. ; Readily biodegradable Results obtained on a similar product.

*XYLENE (1330-20-7):*

The product is considered to be readily biodegradable.

*BUTAN-1-OL (71-36-3):*

92 % (sewage, domestic, non-adapted ; 20 d ; Oxygen depletion) ; Readily biodegradable

*ETHYLBENZENE (100-41-4):*

70 - 80 % (activated sludge, domestic (adaptation not specified) ; 28 d) ; Method: OECD 301 B ; Readily biodegradable The 10-day window requirement is fulfilled.

*TOLUENE (108-88-3):*

69 % ; The product is easily biodegradable.

*N-HEXANE (110-54-3):*

98 % (activated sludge, domestic (adaptation not specified) ; 28 d) ; Method: OECD 301 F ; Readily biodegradable Results obtained on a similar product. The 10-day window requirement is fulfilled.

**BOD/COD Ratio:** No data available.

## **12.3 Bioaccumulative potential:**

### **Bioconcentration Factor (BCF): Based on our knowledge of the composition information:**

*XYLENE (1330-20-7):*

Bioconcentration Factor (BCF): 25.9 (Oncorhynchus mykiss ; 56 d) ; The product is not bioaccumulating. Results obtained on a similar product.

*BUTAN-1-OL (71-36-3):*

Bioconcentration Factor (BCF): 3.16 ; Method: QSAR

*ETHYLBENZENE (100-41-4):*

Bioconcentration Factor (BCF): 1 (Oncorhynchus kisutch) ; The product is not considered to have a bioaccumulative potential.

*TOLUENE (108-88-3):*

Bioconcentration Factor (BCF): 90 ; Potential to bioaccumulate is low.

*N-HEXANE (110-54-3):*

Bioconcentration Factor (BCF): 501 ; The product is considered to have a bioaccumulative potential.  
Structure-activity relationship (SAR)

**Partition coefficient (n-octanol/water): Based on our knowledge of the composition information:**

*TETRAETHYL ORTHOSILICATE (78-10-4):*

Log Kow: 3.18 (40 °C) ; Method: Measured ; at pH 7

*TITANIUM TETRABUTANOLATE (5593-70-4):*

Log Kow: 0.88 (20 °C) ; Results obtained on a similar product.

*XYLENE (1330-20-7):*

Log Kow: 3.16 (20 °C)

*BUTAN-1-OL (71-36-3):*

Log Kow: 1 (25 °C) ; Method: OECD 117 ; at pH 7

*ETHYLBENZENE (100-41-4):*

Log Kow: 3.6 (20 °C)

*TOLUENE (108-88-3):*

Log Kow: 2.73 (20 °C)

*N-HEXANE (110-54-3):*

Log Kow: 4 (20 °C)

**12.4 Mobility in soil:**

No data available.

**12.5 Other adverse effects:**

No data available.

## 13. Disposal considerations

**13.1 Waste treatment methods:**

**Disposal methods:**

Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability.

**Contaminated Packaging:**

Contaminated packages should be as empty as possible.

**Waste code:**

EPA RCRA HAZARDOUS WASTE CODE: D001

## 14. Transport information

**DOT**

14.1 UN number or ID number: UN 1993  
14.2 UN Proper Shipping Name: FLAMMABLE LIQUID, N.O.S.  
14.3 Transport Hazard Class(es):  
Class: 3  
Label(s): 3  
EmS No.: 128,  
14.4 Packing Group: III  
14.5 Environmental hazards: Not a Marine Pollutant  
14.6 Special precautions for user: None.

**IMDG / IMO**

14.1 UN Number: UN 1993  
14.2 UN Proper Shipping Name: FLAMMABLE LIQUID, N.O.S.  
14.3 Transport Hazard Class(es):  
Class: 3  
Label(s): 3  
EmS No.: F-E, S-E  
14.4 Packing Group: III  
14.5 Environmental hazards: Not a Marine Pollutant  
14.6 Special precautions for user: None.  
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: Not applicable.

**IATA**

14.1 UN number or ID number: UN 1993  
14.2 Proper Shipping Name: FLAMMABLE LIQUID, N.O.S.  
14.3 Transport Hazard Class(es):  
Class: 3  
Label(s): 3  
14.4 Packing Group: III  
14.5 Environmental hazards: No  
14.6 Special precautions for user: None.  
Other information  
Passenger and cargo aircraft: Allowed.  
Cargo aircraft only: Allowed.

**15. Regulatory information****US Federal Regulations:**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):** None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

<u>Chemical Identity:</u>	<u>Reportable quantity:</u>
Xylene	100 lbs
Ethylbenzene	1000 lbs
Toluene	1000 lbs
n-hexane	5000 lbs
Butan-1-ol	5000 lbs

**Superfund Amendments and Reauthorization Act of 1986 (SARA):****Hazard categories:**

Flammable liquids, Skin Corrosion/Irritation, Serious Eye Damage/Eye Irritation, Specific Target Organ Toxicity - Single Exposure, Carcinogenicity, Toxic to reproduction, Aspiration Hazard

**SARA 304 Emergency Release Notification:**

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:**

<u>Chemical Identity:</u>	<u>Reporting threshold for other users:</u>	<u>Reporting threshold for manufacturing and processing:</u>
Xylene	10000 lbs	25000lbs
Ethylbenzene	10000 lbs	25000lbs
Toluene	10000 lbs	25000lbs
n-hexane	10000 lbs	25000lbs
Butan-1-ol	10000 lbs	25000lbs

**US State Regulations:**

**US. California Proposition 65:**



This product can expose you to chemicals including: Ethylbenzene (<0.7%), Toluene (<0.7%), Benzene (<0.07%) : which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**US. New Jersey Worker and Community Right-to-Know Act:**

- Chemical Identity:  
 Xylene  
 Toluene  
 Tetraethyl orthosilicate  
 Benzene, trimethyl-  
 Ethylbenzene  
 n-hexane  
 Butan-1-ol

**US. Massachusetts RTK - Substance List:**

- Chemical Identity:  
 Xylene  
 Benzene, trimethyl-  
 Ethylbenzene  
 Toluene  
 n-hexane

**US. Pennsylvania RTK - Hazardous Substances:**

- Chemical Identity:  
 Tetraethyl orthosilicate  
 Xylene  
 Benzene, trimethyl-  
 Ethylbenzene  
 Toluene  
 n-hexane  
 Butan-1-ol

**US. Rhode Island RTK:** No ingredient regulated by RI Right-to-Know Law present.

**Inventory Status:**

US TSCA Inventory:	On or in compliance with the inventory.
Canada DSL Inventory List:	On or in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory.
Australia AICS:	On or in compliance with the inventory.
New Zealand Inventory of Chemicals:	On or in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory.

Taiwan Chemical Substance Inventory:

On or in compliance with the inventory.

**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID:**

<b>Health</b>		2
<b>Flammability</b>	2	
<b>Physical Hazards</b>	0	
<b>PERSONAL PROTECTION</b>		C

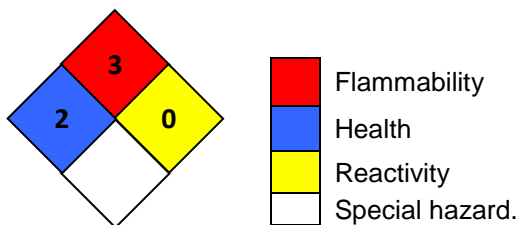
<b>Health</b>	*	2
<b>Flammability</b>	3	
<b>Physical Hazards</b>	0	
<b>PERSONAL PROTECTION</b>		H

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect  
 C - Safety Glasses, Gloves & Apron H - Goggles, Gloves, Apron & Vapor Respirator

**NFPA Hazard ID:**



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

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**Further Information:**

No data available.

**Disclaimer:**

The information given is based on data available for the material, the components of the material, and similar materials. The information is believed to be correct. It is given in good faith. This information should be used to make an independent determination of the methods to safeguard workers and the environment.