## Z-Prime Plus

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Date of issue: 08/06/2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

| Product form | $:$ Mixture |
| :--- | :--- |
| Product name | : Z-Prime Plus |

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

1.2.1. Relevant identified uses

Use of the substance/mixture : For Rx Only
1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

## Manufacturer:

Bisco, Inc. 1100 W Irving Park Road, Schaumburg, IL 60193 USA
1-847-534-6000, during normal business hours
www.bisco.com

## EC Representative:

Bisico France, 208, allée de la Coudoulette, 13680 Lançon de Provence, France
Telephone: 33-4-90-42-92-92
1.4. Emergency telephone number

Emergency number
CHEMTREC - 24-Hour Hazmat Emergency Communications Center
Domestic: 1-800-424-9300 Outside the U.S.: 1-703-527-3887, collect calls accepted

## SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Flammable liquids, Category 2 H225
Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category H319 2

Skin sensitisation, Category $1 \quad$ H317
Specific target organ toxicity — Single H335
exposure, Category 3, Respiratory tract
irritation
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects
Highly flammable liquid and vapour. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)


Danger
Ethanol; 2-Hydroxyethyl Methacrylate; BisGMA
H225 - Highly flammable liquid and vapour
H315-Causes skin irritation
H317- May cause an allergic skin reaction H319-Causes serious eye irritation H335-May cause respiratory irritation
Precautionary statements (CLP)


GHS07

Signal word (CLP)
Hazardous ingredients
Hazard statements (CLP)

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed

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P240-Ground and bond container and receiving equipment.
P261 - Avoid breathing vapours
P264 - Wash hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear face protection, eye protection, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water or 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
P312 - Call a doctor, a POISON CENTER if you feel unwell.
P321 - Specific treatment (see First aid measures on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P370+P378 - In case of fire: Use sand, extinguishing powder to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235-Store in a well-ventilated place. Keep cool
P405-Store locked up
P501 - Dispose of contents and container to a hazardous or special waste collection point, a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste, hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
2.3. Other hazards

No additional information available
SECTION 3: Composition/information on ingredients
3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | \% | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
| :---: | :---: | :---: | :---: |
| Ethanol | (CAS-No.) 64-17-5 <br> (EC-No.) 200-578-6 <br> (EC Index-No.) 603-002-00-5 | 75-85 | Flam. Liq. 2, H225 <br> Skin Irrit. 2, H315 <br> Eye Irrit. 2, H319 <br> STOT SE 3, H335 |
| BisGMA | (CAS-No.) 1565-94-2 | 5-10 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 |
| 2-Hydroxyethyl Methacrylate | (CAS-No.) 868-77-9 <br> (EC-No.) 212-782-2 <br> (EC Index-No.) 607-124-00-X | 5-10 | Skin Irrit. 2, H315 <br> Eye Irrit. 2, H319 <br> Skin Sens. 1, H317 |
| 10-Methacryloyloxydecyl Dihydrogen Phosphate | (CAS-No.) 85590-00-7 | 1-5 | Skin Irrit. 2, H315 <br> Eye Irrit. 2, H319 <br> STOT SE 3, H335 |
| Triethylamine substance with a Community workplace exposure limit | (CAS-No.) 121-44-8 <br> (EC-No.) 204-469-4 <br> (EC Index-No.) 612-004-00-5 | < 1 | Flam. Liq. 2, H225 <br> Acute Tox. 4 (Oral), H302 <br> Acute Tox. 3 (Dermal), H311 <br> Skin Corr. 1A, H314 <br> Eye Dam. 1, H318 <br> STOT SE 3, H335 |

Specific concentration limits:

| Name | Product identifier | Specific concentration limits |
| :--- | :--- | :--- |
| Triethylamine | (CAS-No.) 121-44-8 <br> (EC-No.) 204-469-4 <br> (EC Index-No.) 612-004-00-5 | (C >= 1) STOT SE 3, H335 |

Full text of H-statements: see section 16

## SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general
Call a poison center or a doctor if you feel unwell.

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| First-aid measures after inhalation | Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell. |
| :---: | :---: |
| 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. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | Call a poison center or a doctor if you feel unwell. |
| 4.2. Most important symptoms and effects, both acute and delayed |  |
| Symptoms/effects after inhalation | May cause respiratory irritation. |
| Symptoms/effects after skin contact | Irritation. May cause an allergic skin reaction. |
| Symptoms/effects after eye contact | Eye irritation. |
| 4.3. Indication of any immediate medical attention and special treatment needed |  |
| Treat symptomatically. |  |
| SECTION 5: Firefighting measures |  |
| 5.1. Extinguishing media |  |
| Suitable extinguishing media | Water spray. Dry powder. Foam. Carbon dioxide. |
| 5.2. Special hazards arising from the substance or mixture |  |
| Fire hazard | Highly flammable liquid and vapour. |
| Hazardous decomposition products in case of fire | Toxic fumes may be released. |
| 5.3. Advice for firefighters |  |
| 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
6.1.2. For emergency responders

Protective equipment
6.2. Environmental precautions

Avoid release to the environment.
6.3. Methods and material for containment and cleaning up

Methods for cleaning up
Other information
: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
: 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

Hygiene measures

> 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. Use only outdoors or in a well-ventilated area. Avoid breathing mist, vapours. Avoid contact with skin and eyes.
> $:$ 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
Storage conditions
7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection
8.1. Control parameters

| Ethanol (64-17-5) |  |  |
| :---: | :---: | :---: |
| Belgium | Limit value ( $\mathrm{mg} / \mathrm{m}^{3}$ ) | $1907 \mathrm{mg} / \mathrm{m}^{3}$ (Alcool éthylique; Belgium; Time-weighted average exposure limit 8 h ) |
| Belgium | Limit value (ppm) | 1000 ppm (Alcool éthylique; Belgium; Time-weighted average exposure limit 8 h ) |
| France | VME ( $\mathrm{mg} / \mathrm{m}^{3}$ ) | $1900 \mathrm{mg} / \mathrm{m}^{3}$ (Alcool éthylique; France; Time-weighted average exposure limit 8 h ; VL: Valeur non réglementaire indicative) |
| France | VME (ppm) | 1000 ppm (Alcool éthylique; France; Time-weighted average exposure limit 8 h ; VL: Valeur non réglementaire indicative) |
| France | VLE ( $\mathrm{mg} / \mathrm{m}^{3}$ ) | $9500 \mathrm{mg} / \mathrm{m}^{3}$ (Alcool éthylique; France; Short time value; VL: Valeur non réglementaire indicative) |
| France | VLE (ppm) | 5000 ppm (Alcool éthylique; France; Short time value; VL: Valeur non réglementaire indicative) |
| Netherlands | Grenswaarde TGG 8H ( $\mathrm{mg} / \mathrm{m}^{3}$ ) | $260 \mathrm{mg} / \mathrm{m}^{3}$ (Ethanol; Netherlands; Time-weighted average exposure limit 8 h ; Public occupational exposure limit value) |
| Netherlands | Grenswaarde TGG 8H (ppm) | 136 ppm (Ethanol; Netherlands; Time-weighted average exposure limit 8 h ; Public occupational exposure limit value) |
| Netherlands | Grenswaarde TGG 15MIN (mg/m ${ }^{3}$ ) | $1900 \mathrm{mg} / \mathrm{m}^{3}$ (Ethanol; Netherlands; Short time value; Public occupational exposure limit value) |
| Netherlands | Grenswaarde TGG 15MIN (ppm) | 992 ppm (Ethanol; Netherlands; Short time value; Public occupational exposure limit value) |
| United Kingdom | WEL TWA (mg/m ${ }^{3}$ ) | $1920 \mathrm{mg} / \mathrm{m}^{3}$ Ethanol; United Kingdom; Time-weighted average exposure limit 8 h ; Workplace exposure limit (EH40/2005) |
| United Kingdom | WEL TWA (ppm) | 1000 ppm Ethanol; United Kingdom; Time-weighted average exposure limit 8 h ; Workplace exposure limit (EH40/2005) |
| USA - ACGIH | ACGIH STEL (ppm) | 1000 ppm (Ethanol; USA; Short time value; TLV Adopted Value) |
| Triethylamine (121-44-8) |  |  |
| EU | IOELV TWA (mg/m) | $8.4 \mathrm{mg} / \mathrm{m}^{3}$ (Triethylamine; EU; Time-weighted average exposure limit 8 h ; Indicative occupational exposure limit value) |
| EU | IOELV TWA (ppm) | 2 ppm (Triethylamine; EU; Time-weighted average exposure limit 8 h ; Indicative occupational exposure limit value) |
| EU | IOELV STEL ( $\mathrm{mg} / \mathrm{m}^{3}$ ) | $12.6 \mathrm{mg} / \mathrm{m}^{3}$ (Triethylamine; EU; Short time value; Indicative occupational exposure limit value) |
| EU | IOELV STEL (ppm) | 3 ppm (Triethylamine; EU; Short time value; Indicative occupational exposure limit value) |
| Belgium | Limit value ( $\mathrm{mg} / \mathrm{m}^{3}$ ) | $4.2 \mathrm{mg} / \mathrm{m}^{3}$ (Triéthylamine; Belgium; Time-weighted average exposure limit 8 h ) |
| Belgium | Limit value (ppm) | 1 ppm (Triéthylamine; Belgium; Time-weighted average exposure limit 8 h ) |
| Belgium | Short time value ( $\mathrm{mg} / \mathrm{m}^{3}$ ) | 12.6 mg/m ${ }^{3}$ (Triéthylamine; Belgium; Short time value) |
| Belgium | Short time value (ppm) | 3 ppm (Triéthylamine; Belgium; Short time value) |
| France | VME ( $\mathrm{mg} / \mathrm{m}^{3}$ ) | $4.2 \mathrm{mg} / \mathrm{m}^{3}$ (Triéthylamine; France; Time-weighted average exposure limit 8 h ; VRC: Valeur réglementaire contraignante) |
| France | VME (ppm) | 1 ppm (Triéthylamine; France; Time-weighted average exposure limit 8 h ; VRC: Valeur réglementaire contraignante) |
| France | VLE ( $\mathrm{mg} / \mathrm{m}^{3}$ ) | $12.6 \mathrm{mg} / \mathrm{m}^{3}$ (Triéthylamine; France; Short time value; VRC: Valeur réglementaire contraignante) |
| France | VLE (ppm) | 3 ppm (Triéthylamine; France; Short time value; VRC: Valeur réglementaire contraignante) |
| Netherlands | Grenswaarde TGG 8H (mg/m ${ }^{3}$ ) | $4.2 \mathrm{mg} / \mathrm{m}^{3}$ (Triethylamine; Netherlands; Time-weighted average exposure limit 8 h ; Public occupational exposure limit value) |

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| Triethylamine (121-44-8) |  | Grenswaarde TGG 8H (ppm) |
| :--- | :--- | :--- |
| Netherlands | Grenswaarde TGG 15MIN (mg/m $\left.{ }^{3}\right)$ | 1 ppm (Triethylamine; Netherlands; Time-weighted <br> average exposure limit 8 h; Public occupational <br> exposure limit value) |
| Netherlands | Grenswaarde TGG 15MIN (ppm) | $12.6 \mathrm{mg} / \mathrm{m}^{3}$ (Triethylamine; Netherlands; Short time <br> value; Public occupational exposure limit value) |
| Netherlands | WEL TWA (mg/m³) | 3 ppm (Triethylamine; Netherlands; Short time value; <br> Public occupational exposure limit value) |
| United Kingdom | WEL TWA (ppm) | 8 mg/m ${ }^{3}$ Triethylamine; United Kingdom; Time- <br> weighted average exposure limit 8 h; Workplace <br> exposure limit (EH40/2005) |
| United Kingdom | WEL STEL (mg/m $\left.{ }^{3}\right)$ | 2 ppm Triethylamine; United Kingdom; Time-weighted <br> average exposure limit 8 h; Workplace exposure limit <br> (EH40/2005) |
| United Kingdom | WEL STEL (ppm) | $17 \mathrm{mg} / \mathrm{m}^{3}$ Triethylamine; United Kingdom; Short time <br> value; Workplace exposure limit (EH40/2005) |
| United Kingdom | Local name | 4 ppm Triethylamine; United Kingdom; Short time <br> value; Workplace exposure limit (EH40/2005) |
| USA - ACGIH | ACGIH TWA (ppm) | Triethylamine |
| USA - ACGIH | ACGIH STEL (ppm) | 0.5 ppm |
| USA - ACGIH | Remark (ACGIH) | 1 ppm |
| USA - ACGIH | Local name | URT irr; visual impair; Skin; A4 |
| USA - OSHA | OSHA PEL (TWA) (mg/m $\left.{ }^{3}\right)$ | Triethylamine |
| USA - OSHA | OSHA PEL (TWA) (ppm) | 100 mg/m ${ }^{3}$ |
| USA - OSHA | 25 ppm |  |

### 8.2. Exposure controls

## Appropriate engineering controls:

Ensure good ventilation of the work station.

## Hand protection

Protective gloves
Eye protection:
Safety glasses

## Skin and body protection:

Wear suitable protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

## Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state | : Liquid |
| :--- | :--- |
| Appearance | : Clear liquid. |
| Colour | : Pale yellow. |
| Odour | : Ethanol odor. |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | $:$ No data available |
| Auto-ignition temperature | $:$ No data available |
| Decomposition temperature | $:$ No data available |

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| Flammability (solid, gas) | $:$ Not applicable |
| :--- | :--- |
| Vapour pressure | $:$ No data available |
| Relative vapour density at $20^{\circ} \mathrm{C}$ | $:$ No data available |
| Relative density | $:$ No data available |
| Solubility | $:$ No data available |
| Log Pow | : No data available |
| Viscosity, kinematic | $:$ No data available |
| Viscosity, dynamic | $:$ No data available |
| Explosive properties | $:$ No data available |
| Oxidising properties | $:$ No data available |
| Explosive limits | $:$ No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

10.1. Reactivity

Highly 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 |


| Ethanol (64-17-5) |  |
| :--- | :--- |
| LD50 oral rat | $10740 \mathrm{mg} / \mathrm{kg}$ (Rat; Experimental value,Rat; Experimental value) |
| LD50 dermal rabbit | $>16000 \mathrm{mg} / \mathrm{kg}$ (Rabbit; Literature study) |
| 10-Methacryloyloxydecyl Dihydrogen Phosphate (85590-00-7) |  |
| LD50 oral rat | $>\quad>\mathrm{mg} / \mathrm{kg}$ |
| 2-Hydroxyethyl Methacrylate (868-77-9) | $5564 \mathrm{mg} / \mathrm{kg}$ bodyweight (Rat; Experimental value) |
| LD50 oral rat | $>5000 \mathrm{mg} / \mathrm{kg}$ bodyweight (Rabbit; Experimental value) |
| LD50 dermal rabbit | $>460 \mathrm{mg} / \mathrm{kg}$ (Rat; Equivalent or similar to OECD 401; Experimental value; 730 $\mathrm{mg} / \mathrm{kg}$ <br> bodyweight; Rat) |
| Triethylamine (121-44-8) | $416 \mathrm{mg} / \mathrm{kg}$ (Rabbit; Experimental value; Equivalent or similar to OECD $402 ; 580 \mathrm{mg} / \mathrm{kg}$ <br> bodyweight; Rabbit) |
| LD50 oral rat | $>4.2 \mathrm{mg} / / / 4 \mathrm{~h}$ (Rat) |
| LD50 dermal rabbit | $:$Causes skin irritation. <br> LC50 inhalation rat (mg/l) <br> Skin corrosion/irritation <br> Serious eye damage/irritation <br> Respiratory or skin sensitisation <br> Germ cell mutagenicity <br> Carcinogenicity <br> Reproductive toxicity |

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| STOT-single exposure | : May cause respiratory irritation. |
| :--- | :--- |
| STOT-repeated exposure | $:$ Not classified |
| Aspiration hazard | $:$ Not classified |

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general
Acute aquatic toxicity
Chronic aquatic toxicity
: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Not classified
Not classified

Ethanol (64-17-5)
LC50 fish 1 14200 mg/I (LC50; US EPA; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)

## 10-Methacryloyloxydecyl Dihydrogen Phosphate (85590-00-7)

| EC50 Daphnia 1 | > mg/l |
| :---: | :---: |
| NOEC chronic fish | 48h $10 \mathrm{mg} / \mathrm{l}$ |
| 2-Hydroxyethyl Methacrylate (868-77-9) |  |
| LC50 fish 1 | $227 \mathrm{mg} / \mathrm{l}$ (LC50; 96 h$)$ |
| EC50 Daphnia 1 | 171 mg/I (NOEC; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h ; Daphnia magna; Static system; Fresh water; Experimental value) |
| EC50 Daphnia 2 | $380 \mathrm{mg} / \mathrm{I}$ (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h ; Daphnia magna; Static system; Fresh water; Experimental value) |
| Threshold limit algae 1 | 836 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value) |
| Threshold limit algae 2 | 345 mg/l (EbC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value) |
| Triethylamine (121-44-8) |  |
| EC50 Daphnia 2 | 17 mg/l (LC50; ASTM; 48 h; Ceriodaphnia dubia; Semi-static system; Fresh water; Experimental value) |

### 12.2. Persistence and degradability

| Ethanol (64-17-5) |  |
| :---: | :---: |
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. |
| Biochemical oxygen demand (BOD) | 0.8-0.967 g O${ }_{2} / \mathrm{g}$ substance |
| Chemical oxygen demand (COD) | $1.7 \mathrm{~g} \mathrm{O}_{2} / \mathrm{g}$ substance |
| ThOD | $2.1 \mathrm{~g} \mathrm{O}_{2} / \mathrm{g}$ substance |
| BOD (\% of ThOD) | 0.43 |
| 2-Hydroxyethyl Methacrylate (868-77-9) |  |
| Persistence and degradability | Readily biodegradable in water. Biodegradability in soil: no data available. Adsorbs into the soil. |
| Triethylamine (121-44-8) |  |
| Persistence and degradability | Readily biodegradable in water. Low potential for adsorption in soil. Photodegradation in the air. |
| Biochemical oxygen demand (BOD) | < $0.001 \mathrm{~g} \mathrm{O}_{2} / \mathrm{g}$ substance |
| Chemical oxygen demand (COD) | $1.02 \mathrm{~g} \mathrm{O}_{2} / \mathrm{g}$ substance |
| 12.3. Bioaccumulative potential |  |
| Ethanol (64-17-5) |  |
| BCF fish 1 | 1 (BCF; Other; 72 h; Cyprinus carpio; Static system; Fresh water; Read-across) |
| Log Pow | -0.31 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |
| 2-Hydroxyethyl Methacrylate (868-77-9) |  |
| BCF fish 1 | 1.3-1.5 (BCF) |
| Log Pow | -0.55-0.49 (0.42; Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; $25^{\circ} \mathrm{C}$ ) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

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| Triethylamine (121-44-8) |  |
| :--- | :--- |
| BCF fish 1 | $<0.5$ (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; <br> Fresh water) |
| Log Pow | 1.45 (Experimental value; Other) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| 12.4. Mobility in soil |  |
| Ethanol (64-17-5) |  |
| Surface tension | $0.022 \mathrm{~N} / \mathrm{m}\left(20^{\circ} \mathrm{C}\right)$ |
| Log Koc | Koc,PCKOCWIN v1.66; 1; Read-across |
| Triethylamine (121-44-8) |  |
| Surface tension | $0.021 \mathrm{~N} / \mathrm{m}\left(20{ }^{\circ} \mathrm{C}\right)$ |
| Log Koc | log Koc,Other; 2.56; Calculated value |
| 12.5. Results of PBT and vPvB assessment |  |
| No additional information available |  |
| 12.6. Other adverse effects |  |
| No additional information available |  |

## SECTION 13: Disposal considerations

13.1. Waste treatment 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

In accordance with ADR / RID / IMDG / IATA / ADN

| 14.1. UN number | $: 1170$ |
| :--- | :--- |
| UN-No. (ADR) | $: 1170$ |
| UN-No. (IMDG) | $: 1170$ |
| UN-No. (IATA) | $:$ Not applicable |
| UN-No. (ADN) | $: 1170$ |
| UN-No. (RID) |  |

14.2. UN proper shipping name

Proper Shipping Name (ADR)
Proper Shipping Name (IMDG)
Proper Shipping Name (IATA)
Proper Shipping Name (ADN)
Proper Shipping Name (RID)
Transport document description (ADR)

Transport document description (IMDG)
Transport document description (IATA)
Transport document description (RID)

ETHANOL (ETHYL ALCOHOL) / ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Not applicable
: Not applicable
: Not applicable
: Not applicable
: UN 1170 ETHANOL (ETHYL ALCOHOL) / ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II, (D/E)
: UN 1170, 3
: UN 1170, 3
: UN 1170, 3

### 14.3. Transport hazard class(es)

## ADR

Transport hazard class(es) (ADR) : 3
Danger labels (ADR) : 3

## IMDG

Transport hazard class(es) (IMDG) : 3

IATA
Transport hazard class(es) (IATA) : 3

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ADN

| Transport hazard class(es) (ADN) | $:$ Not applicable |
| :--- | :---: |
| RID | $: 3$ |
| Transport hazard class(es) (RID) | $: 3$ |
| Danger labels (RID) |  |


| 14.4. Packing group |  |
| :--- | :--- |
| Packing group (ADR) | II |
| Packing group (IMDG) | : Not applicable |
| Packing group (IATA) | Not applicable |
| Packing group (ADN) | Not applicable |
| Packing group (RID) | Not applicable |
| 14.5. Environmental hazards No <br> Dangerous for the environment : No <br> Marine pollutant : No supplementary information available |  |

### 14.6. Special precautions for user

- Overland transport

Classification code (ADR) : F1
Special provisions (ADR) : 144, 601
Limited quantities (ADR)
11
Excepted quantities (ADR) : E2
Vehicle for tank carriage : FL
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 33
Orange plates

## 33 <br> 1170

Tunnel restriction code (ADR)
D/E
EAC code
-2YE

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

No data available

- Rail transport

No data available
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

## Z-Prime Plus

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

### 15.1.2. National regulations

Germany
VwVwS Annex reference

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

## Netherlands

SZW-lijst van kankerverwekkende stoffen SZW-lijst van mutagene stoffen
NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding
NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid
NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling

## Denmark

Recommendations Danish Regulation
: Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4)
: Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)
: Ethanol is listed
: None of the components are listed
. Ethanol is listed
: Ethanol is listed

Ethanol is listed
: Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Revision date :08/01/2018
Full text of H - and EUH-statements:

| Acute Tox. 3 (Dermal) | Acute toxicity (dermal), Category 3 |
| :--- | :--- |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Skin Corr. 1A | Skin corrosion/irritation, Category 1A |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| STOT SE 3 | Specific target organ toxicity - Single exposure, Category 3, Respiratory tract irritation |
| H225 | Highly flammable liquid and vapour |
| H302 | Harmful if swallowed |
| H311 | Toxic in contact with skin |
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |

SDS EU (REACH Annex II)

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[^0]:    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

