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**1.1 GHS Product identifier:** UF461 - C-Force Ceramic Orange-Vanilla

**1.2 Recommended use of the chemical and restrictions on use:**

Relevant uses: Chemical cleaning products

Uses advised against: All uses not specified in this section or in section 7.3

**1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:** Cleaning Systems, Inc.

1997 American Blvd

54115 De Pere - United States

Phone.: 9203372175 - Fax: 9203379410

chemcompliance@cleaningsystemsinc.com

http://cleaningsystemsinc.com

**1.4 Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

**2.1 Classification of the substance or mixture:**

**NFPA:**

Health Hazards: 3

Flammability Hazards: 0

Instability Hazards: 0

Special Hazards: Non-applicable

**29 CFR 1910.1200:**

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Carc. 2: Carcinogenicity, Category 2, H351

Eye Dam. 1: Serious eye damage, Category 1, H318

Skin Irrit. 2: Skin irritation, Category 2, H315

Skin Sens. 1: Sensitisation, skin, Category 1, H317

**2.2 Label elements:**

**NFPA:**



**29 CFR 1910.1200:**

**Danger**



**Hazard statements:**

Carc. 2: H351 - Suspected of causing cancer

Eye Dam. 1: H318 - Causes serious eye damage

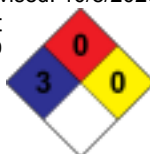
Skin Irrit. 2: H315 - Causes skin irritation

Skin Sens. 1: H317 - May cause an allergic skin reaction

**Precautionary statements:**

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P201: Obtain special instructions before use  
P264: Wash thoroughly after use  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P302+P352: IF ON SKIN: Wash with plenty of 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  
P310: Immediately call a poison center/doctor  
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

### Substances that contribute to the classification

Surfactant Mixture; 4-Nonylphenol, branched, ethoxylated; d-limonene; Benzyl benzoate

### Acute Toxicity Estimate (ATE mix):

23 % (oral), 32.24 % (dermal), 39.65 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity **Additional labeling:**

Keep out of the reach of children

### 2.3 Hazards not otherwise classified (HNOC):

Non-applicable

### 3.1 Substances:

Non-applicable

### 3.2 Mixtures:

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

#### Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

Identification Chemical name/Classification Concentration CAS: Non-applicable **Surfactant Mixture**

Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger **15 - <35 %**

CAS: 127087-87-0 **4-Nonylphenol, branched, ethoxylated**

Acute Tox. 4: H302; Eye Irrit. 2: H319 - Warning **5 - <10 %**

CAS: 5989-27-5 **d-limonene**

Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning **5 - <10 %**

CAS: 120-51-4 **Benzyl benzoate**

Acute Tox. 4: H302 - Warning **<5 %**

CAS: 111-76-2 **2-butoxyethanol**

Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning **<5 %**

CAS: 79-14-1 **Glycolic acid**

Acute Tox. 4: H332; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger **<5 %**

CAS: 121-33-5 **Vanillin**

Eye Irrit. 2: H319 - Warning **<5 %**

CAS: 5131-66-8 **3-butoxypropan-2-ol**

Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning **<5 %**

CAS: 123-35-3 **7-methyl-3-methyleneocta-1,6-diene**

**<5 %**

Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Asp. Tox. 1: H304; Carc. 2: H351; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Irrit. 2: H315 - Danger

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.



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#### **4.1 Description of necessary measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

##### **By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

##### **By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

##### **By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

##### **By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

#### **4.2 Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

#### **4.3 Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

#### **5.1 Suitable (and unsuitable) extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

#### **5.2 Specific hazards arising from the chemical:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

#### **5.3 Special protective equipment and precautions for fire-fighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

##### **Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

### 6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

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### 6.2 Environmental precautions:

Avoid spillage into the aquatic environment as it contains substances potentially dangerous for this. Contain the product absorbed in hermetically sealed containers. In the case of serious spillage into the aquatic environment notify the relevant authority.

### 6.3 Methods and materials for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

### 6.4 Reference to other sections:

See sections 8 and 13.

### 7.1 Precautions for safe handling:

#### A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

#### B.- Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

#### C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

#### D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection

### 6.3) 7.2 Conditions for safe storage, including any incompatibilities:

#### A.- Technical measures for storage

Minimum Temp.: 24.8 °F

Maximum Temp.: 120 °F

#### B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection

### 10.5 7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

2-butoxyethanol 8-hour TWA PEL 50 ppm 240 mg/m<sup>3</sup> CAS: 111-76-2 Ceiling Values - TWA

Identification Occupational exposure limits

PEL

### 8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

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As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

#### B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded. C.- Specific protection for the hands

Pictogram PPE Remarks

Mandatory hand

protection

Protective gloves against minor risks

Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical

protection gloves. Use gloves in accordance with manufacturer's use limitations

and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

#### D.- Ocular and facial protection

Pictogram PPE Remarks

Mandatory face  
protection

Panoramic glasses against splash/projections.

Clean daily and disinfect periodically according to the manufacturer's instructions.

Use if there is a risk of splashing. Use this PPE in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR)

#### E.- Bodily protection

Pictogram PPE Remarks

Work clothing Replace before any evidence of deterioration.

Anti-slip work shoes Replace before any evidence of deterioration.

#### F.- Additional emergency measures

Emergency measure Standards Emergency measure Standards

ANSI Z358-1

ISO 3864-1:2011, ISO 3864-4:2011

DIN 12 899

ISO 3864-1:2011, ISO 3864-4:2011

Emergency shower

Eyewash stations

#### Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

#### National volatile organic compound emission standards (40 CFR Part 59):

V.O.C. (Subpart C - Consumer): 9.19 % weight

V.O.C. (Coatings) at 68 °F: 0.09 kg/m<sup>3</sup> (0.09 g/L)

\*Not relevant due to the nature of the product, not providing information property of its hazards.

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**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**

Physical state at 68 °F: Liquid

Appearance: Not available

Color: Orange

Odor: Not available

Odour threshold: Non-applicable \*

**Volatility:**

Boiling point at atmospheric pressure: Non-applicable \*

Vapour pressure at 68 °F: Non-applicable \*

Vapour pressure at 122 °F: Non-applicable \*

Evaporation rate at 68 °F: Non-applicable \*

**Product description:**

Density at 68 °F: 1 kg/m<sup>3</sup>

Relative density at 68 °F: 0.981

Dynamic viscosity at 68 °F: Non-applicable \*

Kinematic viscosity at 68 °F: Non-applicable \*

Kinematic viscosity at 104 °F: Non-applicable \*

Concentration: Non-applicable \*

pH: Non-applicable \*

Vapour density at 68 °F: Non-applicable \*

Partition coefficient n-octanol/water 68 °F: Non-applicable \*

Solubility in water at 68 °F: Non-applicable \*

Solubility properties: Non-applicable \*

Decomposition temperature: Non-applicable \*

Melting point/freezing point: Non-applicable \*

Explosive properties: Non-applicable \*

Oxidising properties: Non-applicable \*

**Flammability:**

Flash Point: Non Flammable (>199.4 °F)

Flammability (solid, gas): Non-applicable \*

Autoignition temperature: Non-applicable \*

Lower flammability limit: Non-applicable \*

Upper flammability limit: Non-applicable \*

**Explosive:**

Lower explosive limit: Non-applicable \*

Upper explosive limit: Non-applicable \*

**9.2 Other information:**

Surface tension at 68 °F: Non-applicable \*

Refraction index: Non-applicable \*

\*Not relevant due to the nature of the product, not providing information property of its hazards.

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#### 10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7. **10.2 Chemical stability:**

Chemically stable under the conditions of storage, handling and use.

#### 10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected. **10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

Shock and friction Contact with air Increase in temperature Sunlight Humidity Not applicable Not applicable Precaution Precaution Not applicable

#### 10.5 Incompatible materials:

Acids Water Oxidising materials Combustible materials Others Not applicable Not applicable Avoid direct impact Not applicable Avoid alkalis or strong bases

#### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

### 11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

#### **Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

##### **A- Ingestion (acute effect):**

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

##### **B- Inhalation (acute effect):**

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

##### **C- Contact with the skin and the eyes (acute effect):**

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

##### **D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):**

- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.

IARC: 2-butoxyethanol (3); d-limonene (3); 7-methyl-3-methylenoocta-1,6-diene (2B)

- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

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E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

**Other information:**

Non-applicable

**Specific toxicology information on the substances:**

|                                      | Identification                              | Acute toxicity                | Genus                                |
|--------------------------------------|---------------------------------------------|-------------------------------|--------------------------------------|
| 2-butoxyethanol                      | LD50 oral 1414 mg/kg Rat CAS: 111-76-2      | LD50 dermal 1060 mg/kg Rabbit | LC50 inhalation 11 mg/L (4 h) Rat    |
| Benzyl benzoate                      | LD50 oral 1500 mg/kg Rat CAS: 120-51-4      | LD50 dermal 4000 mg/kg Rabbit | LC50 inhalation Non-applicable       |
| d-limonene                           | LD50 oral 4400 mg/kg Rat CAS: 5989-27-5     | LD50 dermal 5100 mg/kg Rabbit | LC50 inhalation Non-applicable       |
| Glycolic acid                        | LD50 oral 2040 mg/kg Rat CAS: 79-14-1       | LD50 dermal Non-applicable    | LC50 inhalation 11 mg/L (4 h) (ATEi) |
| 3-butoxypropan-2-ol                  | LD50 oral 3771 mg/kg Rat CAS: 5131-66-8     | LD50 dermal Non-applicable    | LC50 inhalation Non-applicable       |
| 4-Nonylphenol, branched, ethoxylated | LD50 oral 500 mg/kg (ATEi) CAS: 127087-87-0 | LD50 dermal Non-applicable    | LC50 inhalation Non-applicable       |
| Vanillin                             | LD50 oral 3500 mg/kg Rat CAS: 121-33-5      | LD50 dermal Non-applicable    | LC50 inhalation Non-applicable       |

**Acute Toxicity Estimate (ATE mix):**

ATE mix Ingredient(s) of unknown toxicity

Oral 5190.63 mg/kg (Calculation method) 23 %  
Dermal 35912.8 mg/kg (Calculation method) 32.24 %  
Inhalation 177.03 mg/L (4 h) (Calculation method) 39.65 %

The experimental information related to the eco-toxicological properties of the product itself is not available

**12.1 Ecotoxicity (aquatic and terrestrial, where available):**

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|                                      | Identification           | Acute toxicity                            | Species                | Genus                                 |
|--------------------------------------|--------------------------|-------------------------------------------|------------------------|---------------------------------------|
| 4-Nonylphenol, branched, ethoxylated | LC50 84.7 mg/L (96 h)    | Lepomis macrochirus Fish CAS: 127087-87-0 | EC50 23 mg/L (48 h)    | Daphnia magna                         |
|                                      |                          | Crustacean                                | EC50 19.5 mg/L (72 h)  | Desmodesmus subspicatus Algae         |
| d-limonene                           | LC50 0.702 mg/L (96 h)   | Pimephales promelas Fish CAS: 5989-27-5   | EC50 0.577 mg/L (48 h) | Daphnia magna                         |
|                                      |                          | Crustacean                                | EC50                   | Non-applicable                        |
| 2-butoxyethanol                      | LC50 1490 mg/L (96 h)    | Lepomis macrochirus Fish CAS: 111-76-2    | EC50 1815 mg/L (48 h)  | Daphnia magna                         |
|                                      |                          | Crustacean                                | EC50 911 mg/L (72 h)   | Pseudokirchneriella subcapitata Algae |
| Glycolic acid                        | LC50 164 mg/L (96 h)     | Lepomis macrochirus Fish CAS: 79-14-1     | EC50 141 mg/L (48 h)   | Daphnia magna                         |
|                                      |                          | Crustacean                                | EC50 44 mg/L (72 h)    | Selenastrum capricornutum Algae       |
| Vanillin                             | LC50 57 mg/L (96 h)      | Pimephales promelas Fish CAS: 121-33-5    | EC50                   | Non-applicable                        |
|                                      |                          | EC50                                      | Non-applicable         |                                       |
| 3-butoxypropan-2-ol                  | LC50 560 mg/L (96 h)     | Poecilia reticulada Fish CAS: 5131-66-8   | EC50 1436 mg/L (48 h)  | Daphnia magna                         |
|                                      |                          | Crustacean                                | EC50                   | Non-applicable                        |
| 7-methyl-3-methyleneocta-1,6-diene   | LC50 0.1 - 1 mg/L (96 h) | Fish CAS: 123-35-3                        | EC50 0.1 - 1 mg/L      | Crustacean                            |
|                                      |                          | EC50 0.1 - 1 mg/L                         | Algae                  |                                       |

### 12.2 Persistence and degradability:

|                                      | Identification      | Degradability                | Biodegradability                                             |
|--------------------------------------|---------------------|------------------------------|--------------------------------------------------------------|
| 4-Nonylphenol, branched, ethoxylated | BOD5 Non-applicable | Concentration Non-applicable | CAS: 127087-87-0 COD Non-applicable                          |
|                                      |                     |                              | Period 28 days BOD5/COD Non-applicable % Biodegradable 81 %  |
| d-limonene                           | BOD5 Non-applicable | Concentration Non-applicable | CAS: 5989-27-5 COD Non-applicable                            |
|                                      |                     |                              | Period 28 days BOD5/COD Non-applicable % Biodegradable 100 % |
| 2-butoxyethanol                      | BOD5 0.71 g O2/g    | Concentration 100 mg/L       | CAS: 111-76-2 COD 2.2 g O2/g                                 |
|                                      |                     |                              | Period 14 days BOD5/COD 0.32 % Biodegradable 96 %            |
| Glycolic acid                        | BOD5 Non-applicable | Concentration 100 mg/L       | CAS: 79-14-1 COD Non-applicable                              |
|                                      |                     |                              | Period 14 days BOD5/COD Non-applicable % Biodegradable 86 %  |
| Vanillin                             | BOD5 Non-applicable | Concentration 100 mg/L       | CAS: 121-33-5 COD Non-applicable                             |
|                                      |                     |                              | Period 14 days BOD5/COD Non-applicable % Biodegradable 97 %  |
| 3-butoxypropan-2-ol                  | BOD5 Non-applicable | Concentration 100 mg/L       | CAS: 5131-66-8 COD Non-applicable                            |
|                                      |                     |                              | Period 28 days BOD5/COD Non-applicable % Biodegradable 89 %  |
| 7-methyl-3-methyleneocta-1,6-diene   | BOD5 Non-applicable | Concentration 100 mg/L       | CAS: 123-35-3 COD Non-applicable                             |
|                                      |                     |                              | Period 14 days BOD5/COD Non-applicable % Biodegradable 86 %  |

### 12.3 Bioaccumulative potential:

|                                      | Identification | Bioaccumulation potential |
|--------------------------------------|----------------|---------------------------|
| 4-Nonylphenol, branched, ethoxylated | BCF 8          |                           |
| CAS: 127087-87-0                     | Pow Log 5.67   |                           |
|                                      |                | Potential Low             |
| d-limonene                           | BCF 660        |                           |
| CAS: 5989-27-5                       | Pow Log 4.83   |                           |
|                                      |                | Potential High            |

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## Identification Bioaccumulation potential

2-butoxyethanol BCF 3  
CAS: 111-76-2 Pow Log 0.83

Potential Low

Glycollic acid BCF 3  
CAS: 79-14-1 Pow Log -1.11 Potential Low  
Vanillin BCF 6  
CAS: 121-33-5 Pow Log 1.37

Potential Low

3-butoxypropan-2-ol BCF 1  
CAS: 5131-66-8 Pow Log

Potential Low

7-methyl-3-methyleneocta-1,6-diene BCF 324  
CAS: 123-35-3 Pow Log 5.29

Potential High

## 12.4 Mobility in soil:

## Identification Absorption/desorption Volatility

4-Nonylphenol, branched, ethoxylated Koc 427 Henry Non-applicable CAS: 127087-87-0 Conclusion Low Dry soil Non-applicable Surface tension  
Non-applicable Moist soil Non-applicabled-limonene Koc 6324 Henry 2533.13 Pa·m³/mol CAS: 5989-27-5 Conclusion Immobile Dry soil Yes Surface tension 2.675E-2 N/m (77 °F) Moist soil  
YesBenzyl benzoate Koc Non-applicable Henry Non-applicable CAS: 120-51-4 Conclusion Non-applicable Dry soil Non-applicable Surface tension  
4.626E-2 N/m (77 °F) Moist soil Non-applicable2-butoxyethanol Koc 8 Henry 1.621E-1 Pa·m³/mol CAS: 111-76-2 Conclusion Very High Dry soil No Surface tension 2.729E-2 N/m (77 °F) Moist soil  
Yes

Vanillin Koc 130 Henry 2.128E-4 Pa·m³/mol CAS: 121-33-5 Conclusion Very High Dry soil No Surface tension Non-applicable Moist soil No

7-methyl-3-methyleneocta-1,6-diene Koc 1300 Henry 6515.2 Pa·m³/mol CAS: 123-35-3 Conclusion Low Dry soil Non-applicable Surface tension  
Non-applicable Moist soil Yes

## 12.5 Results of PBT and vPvB assessment:

Non-applicable

## 12.6 Other adverse effects:

Not described

### 13.1 Disposal methods:

#### **Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

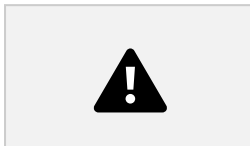
#### **Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

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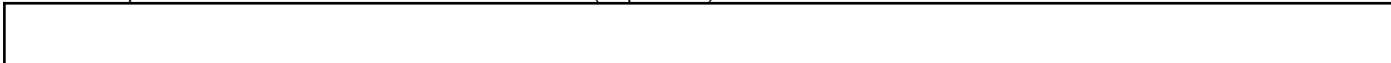
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With regard to 49 CFR on the Transport of Dangerous Goods:

With regard to 49 CFR on the Transport of Dangerous Goods:

- ### Transport of dangerous goods by sea:

With regard to IMDG 38-16:

- ### Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

- 14.1 UN number:** Non-applicable
- 14.2 UN proper shipping name:** Non-applicable
- 14.3 Transport hazard class(es):** Non-applicable  
Labels: Non-applicable
- 14.4 Packing group, if applicable:** Non-applicable
- 14.5 Environmental hazard:** No
- 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**  
Physico-Chemical properties: see section 9
- 14.7 Transport in bulk (according to**  
Limited quantity exemption under inner packaging not over 1.3  
**Annex II of MARPOL 73/78 and**  
gallons packed in a strong outer packaging.  
**the IBC Code):**

**15.1 Safety, health and environmental regulations specific for the product in question:**

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SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol  
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986):  
7-methyl-3-methylenoocta-1,6-diene The Toxic Substances Control Act (TSCA) : d-limonene ; Benzyl benzoate ;  
2-butoxyethanol ; Glycollic acid ; Vanillin ; 3- butoxypropan-2-ol ; 7-methyl-3-methylenoocta-1,6-diene  
Massachusetts RTK - Substance List: Non-applicable  
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol  
New York RTK - Substance list: 2-butoxyethanol  
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol  
CANADA-Domestic Substances List (DSL): d-limonene ; Benzyl benzoate ; 2-butoxyethanol ; Glycollic acid ; Vanillin  
; 3- butoxypropan-2-ol ; 7-methyl-3-methylenoocta-1,6-diene  
CANADA-Non-Domestic Substances List (NDSL): Non-applicable  
NTP (National Toxicology Program): Non-applicable  
Minnesota - Hazardous substances ERTK: 2-butoxyethanol  
Rhode Island - Hazardous substances RTK: 2-butoxyethanol  
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Non-applicable  
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302):  
Non-applicable **Specific provisions in terms of protecting people or the environment:**  
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local  
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of  
this product.  
**Other legislation:**  
The Toxic Substances Control Act (TSCA)  
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets **Texts of the legislative phrases mentioned in section 2:**

H315: Causes skin irritation

H318: Causes serious eye damage

H317: May cause an allergic skin reaction

H351: Suspected of causing cancer

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**29 CFR 1910.1200:**

Acute Tox. 4: H302 - Harmful if swallowed

Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled

Acute Tox. 4: H332 - Harmful if inhaled

Aquatic Acute 1: H400 - Very toxic to aquatic life

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects

Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways

Carc. 2: H351 - Suspected of causing cancer

Eye Dam. 1: H318 - Causes serious eye damage

Eye Irrit. 2: H319 - Causes serious eye irritation

Flam. Liq. 3: H226 - Flammable liquid and vapour

Flam. Liq. 4: H227 - Combustible liquid

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Skin Irrit. 2: H315 - Causes skin irritation

Skin Sens. 1: H317 - May cause an allergic skin reaction

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

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**Principal bibliographical sources:**

Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

CL50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET

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