UF461 - C-Force™ Ceramic Orange-Vanilla

Date of compilation: 7/24/2020 Revised: 10/8/2020 Version: 7 (Replaced 6)

SECTION 1: IDENTIFICATION

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

SECTION 2: HAZARD(S) IDENTIFICATION

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:

- CONTINUED ON NEXT PAGE -

SECTION 2: HAZARD(S) IDENTIFICATION (continued)

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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	**Glycollic 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** 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	**<5 %**

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

- CONTINUED ON NEXT PAGE -

SECTION 4: FIRST-AID MEASURES

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

SECTION 5: FIRE-FIGHTING MEASURES

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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

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.

- CONTINUED ON NEXT PAGE -

SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

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.

SECTION 7: HANDLING AND STORAGE

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 ºF

Maximum Temp.: 120 ºF

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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

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

Identification	Occupational exposure limits		
2-butoxyethanol	8-hour TWA PEL	50 ppm	240 mg/m³
CAS: 111-76-2	Ceiling Values - TWA PEL		

8.2 Appropriate engineering controls:

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

- CONTINUED ON NEXT PAGE -

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

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 ºF: 0.09 kg/m³ (0.09 g/L)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

- CONTINUED ON NEXT PAGE -

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 68 ºF:	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 ºF:	Non-applicable *
Vapour pressure at 122 ºF:	Non-applicable *
Evaporation rate at 68 ºF:	Non-applicable *

Product description:

Density at 68 ºF:	1 kg/m³
Relative density at 68 ºF:	0.981
Dynamic viscosity at 68 ºF:	Non-applicable *
Kinematic viscosity at 68 ºF:	Non-applicable *
Kinematic viscosity at 104 ºF:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 68 ºF:	Non-applicable *
Partition coefficient n-octanol/water 68 ºF:	Non-applicable *
Solubility in water at 68 ºF:	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 ºF)
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 ºF:	Non-applicable *
Refraction index:	Non-applicable *

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

SECTION 10: STABILITY AND REACTIVITY

- CONTINUED ON NEXT PAGE -

SECTION 10: STABILITY AND REACTIVITY (continued)

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 (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

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-methyleneocta-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.

- CONTINUED ON NEXT PAGE -

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

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

SECTION 12: ECOLOGICAL INFORMATION

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

12.1 Ecotoxicity (aquatic and terrestrial, where available):

- CONTINUED ON NEXT PAGE -

SECTION 12: ECOLOGICAL INFORMATION (continued)

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
Glycollic 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 %
Glycollic 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

- CONTINUED ON NEXT PAGE -

SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Bioaccumulation potential	
2-butoxyethanol CAS: 111-76-2	BCF	3
	Pow Log	0.83
	Potential	Low
Glycollic acid CAS: 79-14-1	BCF	3
	Pow Log	-1.11
	Potential	Low
Vanillin CAS: 121-33-5	BCF	6
	Pow Log	1.37
	Potential	Low
3-butoxypropan-2-ol CAS: 5131-66-8	BCF	1
	Pow Log	
	Potential	Low
7-methyl-3-methyleneocta-1,6-diene CAS: 123-35-3	BCF	324
	Pow Log	5.29
	Potential	High

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
4-Nonylphenol, branched, ethoxylated CAS: 127087-87-0	Koc	427	Henry	Non-applicable
	Conclusion	Low	Dry soil	Non-applicable
	Surface tension	Non-applicable	Moist soil	Non-applicable
d-limonene CAS: 5989-27-5	Koc	6324	Henry	2533.13 Pa·m³/mol
	Conclusion	Immobile	Dry soil	Yes
	Surface tension	2.675E-2 N/m (77 ºF)	Moist soil	Yes
Benzyl benzoate CAS: 120-51-4	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	4.626E-2 N/m (77 ºF)	Moist soil	Non-applicable
2-butoxyethanol CAS: 111-76-2	Koc	8	Henry	1.621E-1 Pa·m³/mol
	Conclusion	Very High	Dry soil	No
	Surface tension	2.729E-2 N/m (77 ºF)	Moist soil	Yes
Vanillin CAS: 121-33-5	Koc	130	Henry	2.128E-4 Pa·m³/mol
	Conclusion	Very High	Dry soil	No
	Surface tension	Non-applicable	Moist soil	No
7-methyl-3-methyleneocta-1,6-diene CAS: 123-35-3	Koc	1300	Henry	6515.2 Pa·m³/mol
	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

SECTION 13: DISPOSAL CONSIDERATIONS

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

- CONTINUED ON NEXT PAGE -

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

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

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 Annex II of MARPOL 73/78 and the IBC Code):**	Limited quantity exemption under inner packaging not over 1.3 gallons packed in a strong outer packaging.

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

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 Annex II of MARPOL 73/78 and the IBC Code):**	Limited quantity exemption under inner packaging not over 1.3 gallons packed in a strong outer packaging.

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 Annex II of MARPOL 73/78 and the IBC Code):**	Limited quantity exemption under inner packaging not over 1.3 gallons packed in a strong outer packaging.

SECTION 15: REGULATORY INFORMATION

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

- CONTINUED ON NEXT PAGE -

SECTION 15: REGULATORY INFORMATION (continued)

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-methyleneocta-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-methyleneocta-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-methyleneocta-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)

SECTION 16: OTHER INFORMATION

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.

- CONTINUED ON NEXT PAGE -

SECTION 16: OTHER INFORMATION (continued)

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

END OF SAFETY DATA SHEET