SAFETY DATA SHEET
TASK™ MicroEVO™ Self-Emulsifier

Revision date: 2020-06-11
Version: 1.1P

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name: TASK™ MicroEVO™ Self-Emulsifier

Synonyms: TASK™ MicroEVO™ Self-Emulsifier

Product Form: Mixture

Recommended use of the chemical and restrictions on use

Recommended Use: Professional use, Industrial use. Emulsifier, Surfactant, Remediation of Groundwater and Soil.
Restrictions on Use: Use as recommended by the label

Details of the supplier and of the safety data sheet

Supplier
Tersus Environmental, LLC
1116 Colonial Club Rd
Wake Forest, NC 27587
Phone: +1-919-453-5577
Email: info@tersusenv.com

Contact Person
David F. Alden
Phone: +1-919-453-5577 x2002
Email: david.alden@tersusenv.com

Emergency telephone number

For leak, fire, spill or accident emergencies, call:

+1-919-453-5577 (Tersus Office Hours, 8:00 AM to 5:00 PM Eastern)
+1-800-424-9300 (Chemtrec 24 Hour Service – Emergency Only)
+1-703-527-3887 (Chemtrec Outside United States 24 Hour Service – Emergency Only)
+1-919-638-7892 Gary M. Birk (Outside office hours)

2. HAZARD IDENTIFICATION

Relevant identified uses of the substance or mixture
GHS classification in accordance with 29 CFR 1910.1200
Not a hazardous substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Not classified.

Other hazards None known

Label elements Not a hazardous substance or mixture

Hazard statement Non-Regulated Material

Precautionary statement

Prevention	No GHS prevention statements
Response	No GHS response statements
Storage	No GHS storage statements
Disposal	No GHS disposal statements

Hazard(s) not otherwise classified (HNOC) None known.

Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No.1907/2006,	No
Annex XIII:No.Substance meets the criteria for vPvB according to Regulation (EC) No.1907/2006, Annex XII	No
Other hazards which do not result in classification	Not known

Supplemental information

NFPA Ratings (scale 0-4)

Health = 0
Fire = 1
Reactivity = 0

HMIS Ratings (scale 0-4)

Health = 0 Flammability = 1 Reactivity = 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance Polymer

Hazardous components

Chemical Name	Concentration (%)	CAS Number
None	None	None

Nonhazardous components

Substance	Concentration (%)	CAS Number	Classification Regulation (EC) No. 1272/2008 [CLP/GHS]	Type
Castor oil	>99.5	61791-12-6	Not classified	[A]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

[A] Constituents
[B] Impurity
[C] Stabilizing additive

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Synonyms are provided in Section 1.
Occupational exposure limits, if available, are listed in Section 8.

Mixture Now applicable

4. FIRST AID MEASURES

General Information — Check the vital functions. If unconscious place in recovery position and seek medical advice. In case of respiratory arrest, administer artificial respiration. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Take victim to a doctor if irritation persists.

Remove affected person from source of contamination.

Eye Contact — Promptly wash eye with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention. Do not apply (chemical) neutralizing agents. In case of eye irritation consult an ophthalmologist. Remove any contact lenses and open eyelids wide apart.

Skin Contact — Wash off promptly and flush contaminated skin with water. Promptly remove clothing of soaked through and flush skin with water. Get medical attention if irritation persists after washing. Do not apply (chemical) neutralizing agents.

Inhalation — Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion	Drink plenty of water. DO NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person. Keep the affected person warm and at rest.
Most important symptoms and effects, both acute and delayed	Symptoms/injuries after skin contact No known significant effects or critical hazards. Symptoms/injuries after eye contact No known significant effects or critical hazards.
Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Indication of any immediate medical attention and special treatment needed	If exposed or concerned, get medical advice and attention.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. Put on appropriate personal protective equipment (see Section 8).

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use an extinguishing agent suitable for the surrounding fire. Alcohol resistant foam. Carbon dioxide (CO2). Dry chemicals, sand, dolomite, etc. Water spray
Specific Hazards Arising from the chemical or mixture	Fire hazard: 1 according to HMIS®. Material must be preheated before ignition will occur. Flash point above 200 °F (93 °C) Explosion hazard: In a fire or if heated, a pressure increase will occur and the container may burst.
Special Fire Fighting Procedures	Oxides of the following substances: Carbon, Sulfurous gases (SOx) Cool containers exposed to flames with water until well after the fire is out. Use water spray to reduce vapors. If risk of water pollution occurs, notify appropriate authorities. Avoid water in straight hose stream; will scatter and spread fire. Keep upwind. Do not inhale explosion and combustion gases. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Cool containers exposed to flames with water until well after the fire is out. Use water spray to reduce vapors. If risk of water pollution occurs, notify appropriate authorities. Avoid water in straight hose stream; will scatter and spread fire. Wear positive-pressure, self-contained breathing apparatus (SCBA) and chemical protective clothing.

6. ACCIDENTAL RELEASE MEASURES

For emergency responders	Wear protective clothing as described in Section 8 of this safety data sheet. Do not smoke or use open fire or other sources of ignition. Contact with walking surface may result in formation of slippery film/falling hazard.
For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

First Aid:	In case of contact with skin, wash with soap and water. If symptoms occur, seek medical attention. In case of contact with eyes, rinse with plenty of water for at least 15 minutes and see an eye specialist if irritation persists. In case of inhalation, remove to fresh air. In case of ingestion, drink water. If symptoms occur, seek medical assistance.
Environmental Precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods for Containment and Clean Up	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Do not absorb in sawdust or other combustible material.
Reference to other sections	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

7. HANDLING AND STORAGE

Precautions for safe handling	Contain with applicable regulations. Avoid contact with eyes. Avoid inhalation of vapors and spray/mist. Remove contaminated clothing immediately. Clean contaminated objects and areas thoroughly observing environmental regulations. Keep away from sources of ignition – No smoking. Handle in accordance with good industrial hygiene and safety procedures. Discharge into the environment must be avoided. Keep container tightly closed. Either local exhaust or general room ventilation is usually required.
Hygiene measures	Handle in accordance with good industrial hygiene and safety procedures. Use good personal hygiene practices.
Conditions for safe storage, including any incompatibilities	**Technical measures:** Clean bulk tanks periodically to prevent accumulation of bacteria **Storage conditions:** Store in tightly closed, original container in a well-ventilated place. Protect against frost. Protect against direct sunlight. **Storage temperature:** See technical datasheet. Above 10°C (50°F) and away from heat or flame. **Storage area:** Store in a dry area. Comply with applicable regulations. Collect spillage. **Packaging materials:** Stainless steel. Plastic.

8. EXPOSRE CONTROL / PERSONAL PROTECTION

Control parameters
Exposure Control

Protective equipment

Appropriate engineering controls	Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients. Do not allow uncontrolled discharge of product into the environment.
Eye/face protection	The following protection should be worn: Chemical splash goggles.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Particulate filter, type P2.
Hand protection	Neoprene. Vinyl, Rubber (natural, latex), Butyl rubber. Wear protective gloves made of the following material: Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Polyvinyl chloride (PVC). Manufactured/tested in accordance with EN 374, Avoid the following conditions: Polyvinyl alcohol (PVA).
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Wash promptly if skin becomes contaminated. Wash hands at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear yellow to clear brown, amber liquid.
Odor	Mild, characteristic
Odor threshold	Not determined.
pH	7
Melting point /Freezing Point	15°C approx.
Initial Boiling point and boiling point range	Not determined.
Flash Point	Open cup: >200°C
Evaporation rate	Not determined.
Flammability (solid; gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Vapor pressure	Not determined.
Vapor density	Not determined.
Relative density	1.08 g/cm3 (9.01 lbs/gal)
Solubility (ies)	Easily soluble in the following materials: methanol. Soluble in the following materials: cold water.
Partition coefficient: n-octanol/water	Not determined.
Initial Boiling point and boiling point	Not determined.

range	
Auto-ignition temperature	Unknown
Decomposition temperature	Unknown
Viscosity	500cSt at 40°C (104°F)

10. STABILITY AND REACTIVITY

Reactivity	Stable under recommended storage and handling conditions (see Section 7).
Chemical stability	Stable under normal conditions and use.
Possibility of hazardous reactions	No dangerous reactions known.
Conditions to avoid	No further relevant information available.
Incompatible materials	None, avoid flames and strong oxidizing substances and strong acids.
Hazardous decomposition products	No hazards to be specially mentioned.
Hazardous Polymerization	Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Acute toxicity (oral)	NA
Skin	NA
Serious Eye Damage/Irritation	NA
Respiratory Sensitization	No known significant effects or critical hazards.
Skin Sensitization	NA
Ingestion	
Germ Cell Mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive Toxicity	Not classified
Specific Target Organ Toxicity – Single Exposure	Not classified
Specific Organ Toxicity – Repeated Exposure	Not classified
Aspiration Hazard	Not classified
General Remarks	Not classified

Additional Toxicological Information

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us. The substance is not subject to classification.

Carcinogenic Categories

IRAC (International Agency for Research on Cancer): No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH (American Conference of Governmental Industrial Hygienists): No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP (National Toxicology Program): No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA (Occupational Safety & Health Administration): No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

12. ECOLOGICAL INFORMATION

Toxicity

Product/Ingredient name	Results	Species	Exposure
Castor Oil, Ethoxylated	Acute LC50 116 mg/l Marine water	Cryustaceans – Americamysis bahia	48 hoyurs

Conclusions/Summary: No known significant effects or critical hazards.

Persistence and degradability

Product/Ingredient name	Test	Results	Dose	Inoculum
Castor Oil, Ethoxylated	301D Ready Biodegradability – Closed bottle test	>60% - Readily – 28 days	-	-

Conclusion/Summary:
Biodegradation data source has not been precisely determined for this product. The information provided is compiled based on the data of similar substances. This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

Product/Ingredient name	Aquatic Half-life	Photolysis	Biodegradability
Castor Oil, Ethoxylated			Readily

Bioaccumulative potential

Product/Ingredient name	$LogP_{ow}$	BFC	Potential
Castor Oil, Ethoxylated	-	3,162	Low

Mobility in Soil
Soil/water partitioning coefficient K_{ow}: Not available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any

regional or local authority
requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal
contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with
the requirements of all authorities with jurisdiction.

14. TRANSPORTATION INFORMATION

U.S. (D.O.T.)

Proper Shipping Name:	Chemicals not otherwise indexed (NOI) nonhazardous.
Hazard Class:	Not applicable
UN/NA:	Not applicable
Labels:	Not applicable

Canada (T.D.G.)

Proper Shipping Name:	Chemicals not otherwise indexed (NOI) nonhazardous.
Hazard Class:	Not applicable
UN/NA:	Not applicable
Labels	Not applicable

IMDG

Proper Shipping Name:	Chemicals not otherwise indexed (NOI) nonhazardous.
Hazard Class:	Not applicable
UN/NA:	Not applicable
Labels:	Not applicable

IATA

Proper Shipping Name:	Chemicals not otherwise indexed (NOI) nonhazardous.
Hazard Class:	Not applicable
UN/NA:	Not applicable
Labels:	Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 311/312 Hazards: No SARA Hazards

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

California Prop. 65
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

CH INV:	On the inventory, or in compliance with the inventory
DSL:	All components of this product are on the Canadian DSL
AICS:	On the inventory, or in compliance with the inventory
NZIoC:	On the inventory, or in compliance with the inventory
ENCS:	On the inventory, or in compliance with the inventory
KECI:	Not in compliance with the inventory
PICCS:	On the inventory, or in compliance with the inventory
IECSC:	On the inventory, or in compliance with the inventory
TCSI:	On the inventory, or in compliance with the inventory
TSCA:	On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

Components not precisely identified are proprietary or non-hazardous.

Mixture classified as not dangerous according to Regulation (EC) 1272/2008.

Observe employment restrictions for people.

Product is not listed with IARC, NTP, ACGIH or OSHA as a carcinogen.

The information contained in this Safety Data Sheet, as of the issue date, is believed to be true and correct. However, the accuracy or completeness of this information and any recommendations or suggestions are made without warranty or guarantee. Since the conditions of use are beyond the control of our company, it is the responsibility of the user to determine the conditions of safe use of this product. The information in this sheet does not represent analytical specifications; for this information contact Tersus Environmental.

Disclaimer: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. All recommendations for the use of our products, weather given by us, orally or to be implied from data or lab tests results by us, are based on the current state of our knowledge at the time those recommendations are made. When additional information is obtained, these recommendations may be updated. They may also be influenced by circumstances outside our control. Notwithstanding, such recommendation the user is responsible that the product as supplied by us is suitable to the process or purpose he intends to use it. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of this product. Since we cannot control the application, use or processing of the product, we do not accept responsibility. Therefore, the user should assure that the intended use of the product will not infringe in any party's intellectual property right.

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End of Safety Data Sheet