

SURFONIC® L12-6

Version 1.0 Revision Date: 12/08/2019 SDS Number: 400041002362 Date of last issue: -
Date of first issue: 12/08/2019

Print Date 05/13/2020

SECTION 1. IDENTIFICATION

Product name : SURFONIC® L12-6

Manufacturer or supplier's details

Company name of supplier : Indorama Ventures Oxides LLC
Address : 24 Waterway Ave., Suite 1100
The Woodlands,
Texas 77380
United States of America (USA)
Telephone : (256) 3405200

Manufacturer or supplier's details

E-mail address of person responsible for the SDS : SDSHUN@indorama.net
Emergency telephone number : CHEMTREC - USA (English)
Local Number (National): +1 703-741-5970
Toll-Free Number: 1-800-424-9300

Recommended use of the chemical and restrictions on use

Recommended use : Surfactant

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with 29 CFR 1910.1200**

Acute toxicity (Oral) : Category 4

Serious eye damage : Category 1

Short-term (acute) aquatic hazard : Category 2

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 Harmful if swallowed.
H318 Causes serious eye damage.
H401 Toxic to aquatic life.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.

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P280 Wear eye protection/ face protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Storage:

Not available

Disposal:

P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Alcohols, C10-14, ethoxylated	66455-15-0	90 - 100

The specific chemical identity and/or exact percentage (concentration) of composition may be withheld as a trade secret.

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Treat symptomatically.
Get medical attention if symptoms occur.
- If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Keep eye wide open while rinsing.

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- If eye irritation persists, consult a specialist.
- If swallowed : Induce vomiting immediately and call a physician.
Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : None known.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : No hazardous combustion products are known
- Specific extinguishing methods : No data is available on the product itself.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

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Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep in properly labelled containers.
- Materials to avoid : For incompatible materials please refer to Section 10 of this SDS.
- Further information on storage stability : Stable under normal conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

- Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hand protection
- Remarks : Impervious gloves
The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing

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problems.

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : Clear

Odour : slight

Odour Threshold : No data is available on the product itself.

pH : 6.5 - 8
Concentration: 10 g/l

Freezing point : No data is available on the product itself.

Melting point : No data is available on the product itself.

Boiling point : No data is available on the product itself.

Flash point : 325.0 °F / 162.8 °C
Method: closed cup

Evaporation rate : No data is available on the product itself.

Flammability (solid, gas) : No data is available on the product itself.

Flammability (liquids) : No data is available on the product itself.

Upper explosion limit / Upper flammability limit : No data is available on the product itself.

Lower explosion limit / Lower flammability limit : No data is available on the product itself.

Vapour pressure : No data is available on the product itself.

Relative vapour density : 15

Relative density : 0.99

Density : No data is available on the product itself.

Solubility(ies)
Water solubility : No data is available on the product itself.

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Solubility in other solvents	:	No data is available on the product itself.
Partition coefficient: n-octanol/water	:	log Pow: 2.93 - 3.93
Auto-ignition temperature	:	No data is available on the product itself.
Thermal decomposition	:	No data is available on the product itself.
Self-Accelerating decomposition temperature (SADT)	:	No data is available on the product itself.
Viscosity		
Viscosity, kinematic	:	27 mm ² /s (104 °F / 40 °C)
Explosive properties	:	No data is available on the product itself.
Oxidizing properties	:	None.
Molecular weight	:	Calculation method 429.79 g/mol
Particle size	:	No data is available on the product itself.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No hazards to be specially mentioned.
Conditions to avoid	:	None known.
Incompatible materials	:	None known.
Hazardous decomposition products	:	Ketones Carbon dioxide (CO ₂) Carbon monoxide Aldehydes

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	No data is available on the product itself.
Acute toxicity		
Acute oral toxicity - Product	:	LD50 (Rat): 1,000 mg/kg
Acute inhalation toxicity - Product	:	LC50(Rat): > 1600 mg/m ³ Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403

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Acute dermal toxicity - Product : LD50 (Rat): > 4,000 mg/kg

Acute toxicity (other routes of administration) : No data available

Skin corrosion/irritation**Product:**

Species: Rabbit
Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: No skin irritation

Serious eye damage/eye irritation**Product:**

Species: Rabbit
Result: Irreversible effects on the eye
Assessment: Severe eye irritation
Method: OECD Test Guideline 405

Respiratory or skin sensitisation**Product:**

Exposure routes: Skin
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.

Assessment: No data available

Germ cell mutagenicity**Components:**

Alcohols, C10-14, ethoxylated:
Genotoxicity in vitro : Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: no

Product:

Genotoxicity in vivo : Cell type: Germ + somatic
Application Route: Oral
Exposure time: 24 h
Dose: 1.25 - 3.4 g/kg
Method: OECD Test Guideline 475
Result: negative

Cell type: Germ + somatic
Method: OECD Test Guideline 474
Result: negative

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Germ cell mutagenicity-
Assessment : No data available

Carcinogenicity
Product:

Species: Rat, male and female
Application Route: Oral
Exposure time: 24 month(s)
Dose: 500 mg/kg
Result: negative

Carcinogenicity -
Assessment : No data available

IARC 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 No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity
Product:

Effects on fertility : Species: Rat, male and female
Application Route: Dermal
Target Organs: Heart, Liver, Lungs, Kidney, Testes
Method: OECD Test Guideline 416
Result: negative

Product:

Effects on foetal
development : Species: Rat, male and female
Application Route: Dermal
Result: No teratogenic effects

Species: Rat
Application Route: Oral
General Toxicity Maternal: No observed adverse effect level:
> 250 mg/kg body weight
Result: No teratogenic effects

Reproductive toxicity -
Assessment : No data available

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STOT - single exposure

No data available

STOT - repeated exposure

No data available

Repeated dose toxicity**Product:**

Species: Rat, male and female

NOAEL: >= 500 mg/kg/d

Application Route: Ingestion

Exposure time: 2,160 h

Method: Subchronic toxicity

Repeated dose toxicity - Assessment : No data available

Aspiration toxicity

No data available

Experience with human exposure

General Information: No data available

Inhalation: No data available

Skin contact: No data available

Eye contact: No data available

Ingestion: No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

Ingestion: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

Toxicity to fish - Product : LC50 (Oncorhynchus mykiss (rainbow trout)): 14.63 mg/l

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- Exposure time: 96 h
Test Type: semi-static test
Test substance: Fresh water
- Toxicity to daphnia and other aquatic invertebrates - Product : EC50 (Daphnia magna (Water flea)): 5.64 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
- Toxicity to algae/aquatic plants : No data available
- M-Factor (Acute aquatic toxicity) : No data available
- Toxicity to fish (Chronic toxicity) - Product : EC20 (Pimephales promelas (fathead minnow)): 3.01 mg/l
Exposure time: 30 d
Test substance: Fresh water
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) - Product : EC20 (Daphnia magna (Water flea)): 3.35 mg/l
Exposure time: 21 d
Test substance: Fresh water
- M-Factor (Chronic aquatic toxicity) : No data available
- Toxicity to microorganisms - Product : EC50 (Pseudomonas putida): > 10 g/l
Exposure time: 16.9 h
Test Type: static test
Test substance: Fresh water
Method: DIN 38 412 Part 8
- Toxicity to soil dwelling organisms - Product : LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg
Exposure time: 336 h
- Plant toxicity - Product : NOEC: >= 100 mg/kg
Exposure time: 456 h
Test substance: Natural
Method: Terrestrial Plants Test: Seedling Emergence and Seedling Growth Test
- Sediment toxicity : No data available
- Toxicity to terrestrial organisms : No data available
- Ecotoxicology Assessment Acute aquatic toxicity : No data available
- Chronic aquatic toxicity : No data available
- Toxicity Data on Soil : No data available
- Other organisms relevant to the environment : No data available

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Persistence and degradability

Biodegradability - Product : Result: Readily biodegradable.
Biodegradation: 100 %
Exposure time: 28 d

Biochemical Oxygen Demand (BOD) : No data available

Chemical Oxygen Demand (COD) : No data available

BOD/COD : No data available

ThOD : No data available

BOD/ThOD : No data available

Dissolved organic carbon (DOC) : No data available

Physico-chemical removability : No data available

Stability in water : No data available

Photodegradation : No data available

Impact on Sewage Treatment : No data available

Bioaccumulative potential

Bioaccumulation - Product : Species: Pimephales promelas (fathead minnow)
Bioconcentration factor (BCF): 12.7
Exposure time: 3 d
Test substance: Fresh water
Method: flow-through test
Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water - Product : log Pow: 2.93 - 3.93

Mobility in soil

Mobility : No data available

Distribution among environmental compartments - Product : Koc: 4301.18 - 12639.68

Stability in soil : No data available

Other adverse effects

Environmental fate and pathways : No data available

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Results of PBT and vPvB assessment : No data available

Endocrine disrupting potential : No data available

Adsorbed organic bound halogens (AOX) : No data available

Hazardous to the ozone layer

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information - Product : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life.

Global warming potential (GWP) : No data available

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
Dispose of as hazardous waste in compliance with local and national regulations.
Dispose of contents/ container to an approved waste disposal plant.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION
International Regulations
IATA

Not regulated as dangerous goods

IMDG

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Not regulated as dangerous goods

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations
DOT Classification

Not regulated as dangerous goods

SECTION 15. REGULATORY INFORMATION
EPCRA - Emergency Planning and Community Right-to-Know Act
CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ethylene oxide	75-21-8	10	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : Acute toxicity (any route of exposure)
Serious eye damage or eye irritation

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

WARNING: This product can expose you to chemicals including ethylene oxide, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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 : On the inventory, or 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

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TSCA : All substances listed as active on the TSCA inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

TSCA - 5(a) Significant New Use Rule List of Chemicals

No substances are subject to a Significant New Use Rule.

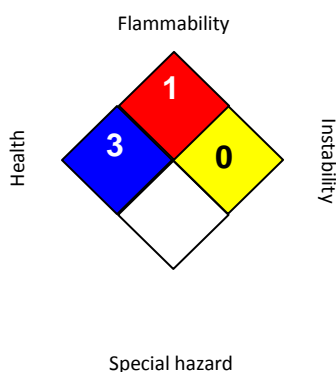
US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard

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The information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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