

**SURFONIC® L24-22**

Version 1.0      Revision Date: 12/08/2019      SDS Number: 400041011151      Date of last issue: -  
Date of first issue: 12/08/2019

Print Date 05/04/2020

**SECTION 1. IDENTIFICATION**

Product name : SURFONIC® L24-22

**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**

Short-term (acute) aquatic hazard : Category 2

**GHS label elements**

Hazard statements : H401 Toxic to aquatic life.

Precautionary statements : **Prevention:**  
P273 Avoid release to the environment.  
**Response:**  
Not available  
**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

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**Hazardous components**

Chemical name	CAS-No.	Concentration (% w/w)
Alcohols, C12-16, ethoxylated	68551-12-2	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.  
 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.

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| 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.<br>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.<br>Avoid dust formation.<br>Avoid breathing dust.<br>Refer to protective measures listed in sections 7 and 8.  |
| Environmental precautions   | : | Prevent product from entering drains.<br>Prevent further leakage or spillage if safe to do so.<br>If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up               | : | Keep in suitable, closed containers for disposal.   |

**SECTION 7. HANDLING AND STORAGE**

- |   |   |  |
|---|---|--|
| Advice on protection against fire and explosion | : | Provide appropriate exhaust ventilation at places where dust is formed.  |
| Advice on safe handling                         | : | Avoid formation of respirable particles.<br>Do not breathe vapours/dust.<br>Avoid contact with skin and eyes.<br>For personal protection see section 8.<br>Smoking, eating and drinking should be prohibited in the application area.<br>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.<br>Containers which are opened must be carefully resealed and kept upright to prevent leakage.<br>Keep in properly labelled containers.  |

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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 : No personal respiratory protective equipment normally required.

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : 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 : solid

Colour : No data is available on the product itself.

Odour : alcohol-like

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

pH : No data is available on the product itself.

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 : 487.51 °F / 253.06 °C  
Method: closed cup

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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 : No data is available on the product itself.

Relative density : 1.05

Density : No data is available on the product itself.

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

Solubility in other solvents : No data is available on the product itself.

Partition coefficient: n-octanol/water : log Pow: <= 3.74

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 : No data is available on the product itself.

Explosive properties : No data is available on the product itself.

Oxidizing properties : None.

Molecular weight : Calculation method 1,166.19 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 : Dust may form explosive mixture in air.

Conditions to avoid : None known.

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Incompatible materials : None known.

Hazardous decomposition products : No hazardous decomposition products are known.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure : No data is available on the product itself.

**Acute toxicity**

Acute oral toxicity : No data available

Acute inhalation toxicity - Product : LC50(Rat): > 1600 mg/m3  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403

Acute dermal toxicity - Product : Acute toxicity estimate : 2,503 mg/kg  
Method: Calculation method

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: Normally reversible injuries  
Assessment: No eye irritation  
Method: OECD Test Guideline 405

**Respiratory or skin sensitisation****Product:**

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

Assessment: No data available

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**Germ cell mutagenicity**
**Product:**

Genotoxicity in vitro : Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative  
GLP: yes

Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
GLP: no

Genotoxicity in vivo : No data available

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  
Method: OECD Test Guideline 416

Target Organs: Liver

Target Organs: Lungs

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Target Organs: Kidney

Target Organs: Testes

**Product:**

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

Reproductive toxicity - Assessment : No data available

**STOT - single exposure**

No data available

**STOT - repeated exposure**

No data available

**Repeated dose toxicity****Product:**

Species: Rat, male and female  
NOAEL:  $\geq 500$  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



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**Neurological effects**

No data available

**Further information**

Ingestion: No data available

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**SECTION 12. ECOLOGICAL INFORMATION**
**Ecotoxicity**

- |  |   |
|--|---|
| Toxicity to fish - Product   | : LC50 (Brachydanio rerio (zebrafish)): > 2 mg/l<br>Exposure time: 96 h<br>Test Type: semi-static test<br>Test substance: Fresh water<br>Method: Determination of the Acute Lethal Toxicity of Substances to a Freshwater Fish [Brachydanio rerio Hamilton-Buchanan (Teleostei, C<br>GLP: yes |
| Toxicity to daphnia and other aquatic invertebrates - Product          | : EC50 (Daphnia magna (Water flea)): > 1.4 mg/l<br>Exposure time: 48 h<br>Test Type: static test<br>Test substance: Fresh water<br>Method: Directive 67/548/EEC, Annex V, C.2.<br>GLP: yes  |
| Toxicity to algae/aquatic plants                                       | : No data available   |
| M-Factor (Acute aquatic toxicity)                                      | : No data available   |
| Toxicity to fish (Chronic toxicity)                                    | : No data available   |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : No data available   |
| M-Factor (Chronic aquatic toxicity)                                    | : No data available   |
| Toxicity to microorganisms - Product                                   | : EC50 (Pseudomonas putida): > 10 g/l<br>Exposure time: 16.9 h<br>Test Type: static test<br>Test substance: Fresh water<br>Method: DIN 38 412 Part 8  |
| Toxicity to soil dwelling organisms                                    | : No data available   |
| Plant toxicity - Product   | : NOEC: >= 100 mg/kg<br>Exposure time: 456 h  |

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Test substance: Natural  
 Method: Terrestrial Plants Test: Seedling Emergence and  
 Seedling Growth Test  
 GLP: yes

Sediment toxicity : No data available

Toxicity to terrestrial  
 organisms - Product : EC50: 360 mg/kg  
 Exposure time: 72 h  
 Test substance: Natural

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

**Persistence and degradability**

Biodegradability - Product : Result: Readily biodegradable.  
 Biodegradation: 60 - 95.4 %  
 Exposure time: 28 d  
 Method: OECD Test Guideline 301B

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: Cyprinus carpio (Carp)

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Bioconcentration factor (BCF): < 4.3  
 Exposure time: 2 h  
 Test substance: Fresh water  
 Method: Bioaccumulation: Static Fish Test  
 Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water - Product : log Pow: <= 3.74

**Mobility in soil**

Mobility : No data available

Distribution among environmental compartments - Product : Koc: > 123485.91

Stability in soil : No data available

**Other adverse effects**

Environmental fate and pathways : No data available

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.  
 Harmful to aquatic life with long lasting effects.

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

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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

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** : 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).

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**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](http://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

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**

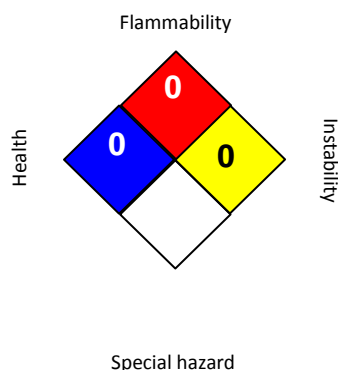
No substances are subject to a Significant New Use Rule.

**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.

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**SECTION 16. OTHER INFORMATION**
**Further information**
**NFPA 704:**

**HMIS® IV:**

<b>HEALTH</b>		<b>0</b>
<b>FLAMMABILITY</b>		<b>0</b>
<b>PHYSICAL HAZARD</b>		<b>0</b>

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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