

SURFONIC® L24-2

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	31.05.2024	400041003117	Date of first issue: 31.05.2024

Print Date 31.05.2024

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SURFONIC® L24-2

Supplier's company name, address and phone number

Company name of supplier	: Indorama Ventures Oxides Ankleshwar Pvt. Limited
Address	: 6th Floor, B Wing, Marwah Centre, Krishanlal Marwah Marg, Andheri (East), Mumbai-400 072 Maharashtra, India
Telephone	: +1256 3405200
E-mail address of person responsible for the SDS	: oxide.sds.global@indorama.net
Emergency telephone number	: CHEMTREC – India (Hindi, Bengali, and English) International Toll Free (NON-RETAIL) : 000 800 1007 141

Recommended use of the chemical and restrictions on use

Recommended use : Surfactant

2. HAZARDS IDENTIFICATION**Manufacture, Storage and Import of Hazardous Chemicals Rules 1989****Classification**

Not classified as hazardous according to criteria laid down in Part I of Schedule-1.

GHS Classification

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 3

GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H400 Very toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.Precautionary Statements : **Prevention:**
P273 Avoid release to the environment.
Response:
P391 Collect spillage.

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Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Components**

Chemical name	CAS-No.	Concentration (% w/w)
Alcohols, C12-16, ethoxylated	68551-12-2	>= 90 - <= 100

4. FIRST AID MEASURES

- | | |
|---|---|
| General advice | : Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.
Do not leave the victim unattended. |
| If inhaled | : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician. |
| 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 | : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist. |
| If swallowed | : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician. |
| Most important symptoms and effects, both acute and delayed | : None known. |
| Protection of first-aiders | : First Aid responders should pay attention to self-protection and use the recommended protective clothing
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
No action shall be taken involving any personal risk or without suitable training. |
| Notes to physician | : Treat symptomatically. |

5. FIRE-FIGHTING MEASURES

- | | |
|---------------------------------------|---|
| Unsuitable extinguishing media | : High volume water jet |
| Specific hazards during fire fighting | : Do not allow run-off from fire fighting to enter drains or water courses. |
| Hazardous combustion products | : No hazardous combustion products are known |

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- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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 fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : 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).
Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Avoid formation of respirable particles.
Do not breathe vapors or spray mist.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
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.
Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : For incompatible materials please refer to Section 10 of this SDS.
- Further information on storage stability : Stable under normal conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

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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
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	:	Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	cloudy
Odor	:	slight
pH	:	5.5 - 6.5 Concentration: 1,000 g/l
Flash point	:	148.9 °C Method: closed cup
Relative vapor density	:	9
Relative density	:	0.9
Density	:	No data available
Viscosity	:	
Viscosity, kinematic	:	24 mm ² /s (25 °C)

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	:	No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute inhalation toxicity	:	Remarks: No data available
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Components:**Alcohols, C12-16, ethoxylated:**

Acute oral toxicity	:	LD50 (Rat): > 2,000 mg/kg GLP: yes Assessment: The substance or mixture has no acute oral toxicity
Acute inhalation toxicity	:	LC50 (Rat): > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 (Rabbit, male and female): 2,000 - 2,216 mg/kg Method: OECD Test Guideline 402

Skin corrosion/irritation**Product:**

Remarks	:	No data available
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Components:**Alcohols, C12-16, ethoxylated:**

Remarks	:	No data available
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Serious eye damage/eye irritation**Product:**

Result	:	Risk of serious damage to eyes.
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Components:**Alcohols, C12-16, ethoxylated:**

Result	:	Risk of serious damage to eyes.
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Respiratory or skin sensitization**Product:**

Remarks	:	No data available
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Components:**Alcohols, C12-16, ethoxylated:**

Routes of exposure	:	Skin
Species	:	Guinea pig
Method	:	Directive 67/548/EEC, Annex V, B.6.
Result	:	Does not cause skin sensitization.
Routes of exposure	:	Skin
Species	:	Guinea pig
Method	:	OECD Test Guideline 406

SURFONIC® L24-2

Version	Revision Date:	SDS Number:	Date of last issue: -
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Result : Does not cause skin sensitization.

Germ cell mutagenicity**Components:****Alcohols, C12-16, ethoxylated:**

Genotoxicity in vitro : Concentration: 500 - 5000 ug/plate
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Genotoxicity in vivo : Application Route: Intraperitoneal injection
Dose: 640 mg/kg
Method: OECD Test Guideline 474
Result: negative

Application Route: Oral
Dose: 1500 mg/kg
Method: OECD Test Guideline 475
Result: negative

Carcinogenicity**Components:****Alcohols, C12-16, ethoxylated:**

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

Reproductive toxicity**Components:****Alcohols, C12-16, ethoxylated:**

Effects on fertility : Species: Rat, male and female
Application Route: Dermal
Method: OECD Test Guideline 416
GLP: yes

Effects on fetal development : Species: Rat, male and female
Application Route: Dermal
General Toxicity Maternal: NOAEL: 100 mg/kg body weight
Method: OECD Test Guideline 416
Result: No teratogenic effects.
GLP: yes

Repeated dose toxicity**Components:****Alcohols, C12-16, ethoxylated:**

Species : Rat, male and female

SURFONIC® L24-2

Version	Revision Date:	SDS Number:	Date of last issue: -
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NOAEL	:	80 - 400
Application Route	:	Ingestion
Exposure time	:	2,160 h
Species	:	Rat, male and female
NOAEL	:	80
Application Route	:	Skin contact
Exposure time	:	2,160 h
Species	:	Rat, male and female
NOAEL	:	459
Application Route	:	Ingestion
Exposure time	:	504 h

Further information**Product:**

Remarks : No data available

12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Alcohols, C12-16, ethoxylated:**

Toxicity to fish	:	(Oncorhynchus mykiss (rainbow trout)): 1.1 mg/l Exposure time: 96 h Test Type: semi-static test Test substance: Fresh water Method: OECD Test Guideline 203 (Brachydanio rerio (zebrafish)): 0.876 mg/l Exposure time: 96 h Test Type: semi-static test Test substance: Fresh water Method: Tested according to Directive 92/69/EEC. (Brachydanio rerio (zebrafish)): 2 mg/l Exposure time: 96 h Test Type: semi-static test Test substance: Fresh water
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Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.53 mg/l Exposure time: 48 h Test Type: static test Test substance: Fresh water Method: Tested according to Directive 92/69/EEC.
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Toxicity to algae/aquatic plants	:	EbC50 (Desmodesmus subspicatus (green algae)): 0.13 - 0.134 mg/l Exposure time: 72 h Test Type: static test ErC50 (Desmodesmus subspicatus (green algae)): > 0.25
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mg/l
 Exposure time: 72 h
 Test Type: static test
 Test substance: Fresh water

ErC50 (*Selenastrum capricornutum* (green algae)): 0.41 mg/l
 Exposure time: 72 h
 Test Type: static test
 Test substance: Fresh water
 Method: OECD Test Guideline 201
 GLP: yes

ErC50 (*Desmodesmus subspicatus* (green algae)): 0.87 mg/l
 Exposure time: 72 h
 Test Type: static test
 Test substance: Fresh water
 GLP: yes

Toxicity to microorganisms : 1,000 mg/l
 Exposure time: 3 h
 GLP:

(*Pseudomonas putida*): > 2,900 mg/l
 Exposure time: 0.5 h
 Test substance: Fresh water
 GLP:

(*Pseudomonas putida*): > 2 mg/l
 Exposure time: 5 h
 Test substance: Fresh water
 GLP:

Toxicity to fish (Chronic toxicity) : NOEC: 0.28 mg/l
 Exposure time: 30 d
 Species: *Pimephales promelas* (fathead minnow)
 Test Type: flow-through test
 Test substance: Fresh water
 GLP: yes

NOEC: > 0.33 mg/l
 Exposure time: 30 d
 Species: *Lepomis macrochirus* (Bluegill sunfish)
 Test Type: flow-through test
 Test substance: Fresh water

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.77 mg/l
 Exposure time: 21 d
 Species: *Daphnia magna* (Water flea)
 Test Type: flow-through test
 Test substance: Fresh water

Toxicity to soil dwelling organisms : LC50: > 1,000 mg/kg
 Exposure time: 14 d
 Species: *Eisenia fetida* (earthworms)
 Method: OECD Test Guideline 207

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Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Persistence and degradability**Components:****Alcohols, C12-16, ethoxylated:**

Biodegradability : Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 95 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 64 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Result: Readily biodegradable.
Biodegradation: 92 %
Exposure time: 28 d

Result: Readily biodegradable.
Biodegradation: 71.2 %
Exposure time: 28 d
Method: Directive 67/548/EEC Annex V, C.4.D.

Concentration: 27 mg/l
Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 28 d
Method: ISO 14593

Bioaccumulative potential**Components:****Alcohols, C12-16, ethoxylated:**

Bioaccumulation : Species: Pimephales promelas (fathead minnow)
Bioconcentration factor (BCF): 12.7 - 237
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 4.22 - 7 (23 °C)
pH: 7.1

Mobility in soil**Components:****Alcohols, C12-16, ethoxylated:**

Distribution among environmental compartments : Koc: 464.2 - 7064

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Other adverse effects**Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life.
Harmful to aquatic life with long lasting effects.

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.

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

14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(C12-C16 ALCOHOL ETHOXYLATE)

Class : 9
Packing group : III
Labels : 9

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(C12-C16 ALCOHOL ETHOXYLATE)

Class : 9
Packing group : III
Labels : 9
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964
Environmentally hazardous : yes

IMDG-Code

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(C12-C16 ALCOHOL ETHOXYLATE)

Class : 9
Packing group : III
Labels : 9

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EmS Code : F-A, S-F
Marine pollutant : yes

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture****The ingredients of this product are reported in the following inventories:**

TCSI	: On the inventory, or in compliance with the inventory
TSCA	: All substances listed as active on the TSCA inventory
AIIC	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: Not 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
NZIoC	: On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

Date format : dd.mm.yyyy

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA

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- International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

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