

TERSPERSE® 4894

Version 2.0 Revision Date: 05/27/2020 SDS Number: 400041003456 Date of last issue: 12/08/2019
Date of first issue: 12/08/2019

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SECTION 1. IDENTIFICATION

Product name : TERSPERSE® 4894

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 : Dispersing agent

Restrictions on use : For industrial use only.

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

Serious eye damage : Category 1

Short-term (acute) aquatic hazard : Category 2

Chronic aquatic toxicity : Category 3

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.
H401 Toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**

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P273 Avoid release to the environment.

P280 Wear eye protection/ face protection.

Response:

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 : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Alcohols, C12-16, ethoxylated	68551-12-2	25 - 30

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 : Wash with water and soap as a precaution.
- 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 : Keep respiratory tract clear.

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Do NOT induce vomiting.
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).
Keep in suitable, closed containers for disposal.

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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 : 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 : 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

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Appearance : liquid

Colour : Clear

Odour : No data is available on the product itself.

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

pH : 5 - 7
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 : 212 °F / 100 °C

Flash point : > 212 °F / > 100 °C
Method: open 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 : No data is available on the product itself.

Relative density : 1 (68 °F / 20 °C)

Density : 1.04 g/cm³ (77 °F / 25 °C)

Solubility(ies)
Water solubility : soluble in cold water

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

Partition coefficient: n-octanol/water : No data is available on the product itself.

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.

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Viscosity
Viscosity, dynamic : 800 - 1,000 mPa.s (77 °F / 25 °C)

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

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

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 : 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 - Product : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:

Alcohols, C12-16, ethoxylated:

Acute inhalation toxicity : 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 : > 5,000 mg/kg
Method: Calculation method

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

Skin corrosion/irritation**Components:**

Alcohols, C12-16, ethoxylated:
Species: Rabbit

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Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: Normally reversible injuries

Serious eye damage/eye irritation**Components:**

Alcohols, C12-16, ethoxylated:
Species: Rabbit
Result: Risk of serious damage to eyes.
Assessment: Risk of serious damage to eyes.
Method: OECD Test Guideline 405

Respiratory or skin sensitisation**Components:**

Alcohols, C12-16, ethoxylated:
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, C12-16, ethoxylated:
Genotoxicity in vitro : Concentration: .5 - 500 ug/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Concentration: .025 - 5 µg/L
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 482
Result: negative

Components:

Alcohols, C12-16, ethoxylated:
Genotoxicity in vivo : Application Route: Intraperitoneal injection
Dose: 75 mg/kg
Method: OECD Test Guideline 474
Result: negative

Germ cell mutagenicity-
Assessment : No data available

Carcinogenicity

No data available

Carcinogenicity -
Assessment : No data available

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- 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
Components:

Alcohols, C12-16, ethoxylated:
 Effects on fertility

: Species: Rat, male and female
 Application Route: Oral
 General Toxicity - Parent: No observed adverse effect level: > 250 mg/kg body weight
 General Toxicity F1: No observed adverse effect level: > 250 mg/kg body weight
 Method: OECD Test Guideline 416
 Result: No effects on fertility and early embryonic development were detected.

Components:

Alcohols, C12-16, ethoxylated:
 Effects on foetal development

: Species: Rat, male and female
 Application Route: Dermal
 Dose: 250 milligram per kilogram
 General Toxicity Maternal: > 250 mg/kg body weight
 Teratogenicity: > 250 mg/kg body weight
 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
Components:

Alcohols, C12-16, ethoxylated:
 Species: Rat, male and female
 NOAEL: 100 mg/kg/d
 Application Route: Ingestion

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Exposure time: 90 Days
Method: Subchronic toxicity

Species: Rat, male and female
NOAEL: 100 mg/kg/d
Application Route: Ingestion
Exposure time: 90 Days
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****Components:**

Alcohols, C12-16, ethoxylated:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 3 mg/l
Exposure time: 96 h
Test substance: Fresh water

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Components:

Alcohols, C12-16, ethoxylated:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.9 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water

Components:

Alcohols, C12-16, ethoxylated:

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): 2.2 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water

ErC50 (Desmodesmus subspicatus (green algae)): 0.137 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water

M-Factor (Acute aquatic toxicity) : No data available

Components:

Alcohols, C12-16, ethoxylated:

Toxicity to fish (Chronic toxicity) : EC20 (Pimephales promelas (fathead minnow)): 1.58 mg/l
Exposure time: 30 d
Test substance: Fresh water

Components:

Alcohols, C12-16, ethoxylated:

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC20 (Daphnia magna (Water flea)): 0.98 mg/l
Exposure time: 21 d
Test substance: Fresh water

M-Factor (Chronic aquatic toxicity) : No data available

Components:

Alcohols, C12-16, ethoxylated:

Toxicity to microorganisms : 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 : No data available

Components:

Alcohols, C12-16, ethoxylated:

Plant toxicity : NOEC: \geq 100 mg/kg
Exposure time: 456 h

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

Sediment toxicity : No data available

Components:

Alcohols, C12-16, ethoxylated:
 Toxicity to terrestrial organisms : EC50: 360 mg/kg
 Exposure time: 72 h
 Test substance: Natural

Ecotoxicology Assessment

Components:

Alcohols, C12-16, ethoxylated:
 Acute aquatic toxicity : Toxic to aquatic life.

Components:

Alcohols, C12-16, ethoxylated:
 Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Toxicity Data on Soil : No data available

Other organisms relevant to the environment : No data available

Persistence and degradability
Components:

Alcohols, C12-16, ethoxylated:
 Biodegradability : 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

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Photodegradation : No data available

Impact on Sewage Treatment : No data available

Bioaccumulative potential

Components:

Alcohols, C12-16, ethoxylated:

Bioaccumulation : 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.

Components:

Alcohols, C12-16, ethoxylated:

Partition coefficient: n-octanol/water : log Pow: 4.24 - 5.14

Mobility in soil

Mobility : No data available

Components:

Alcohols, C12-16, ethoxylated:

Distribution among environmental compartments : Koc: 27134.54 - 71865.83
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).

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

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)
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ethylene oxide	75-21-8	10	*
methyloxirane	75-56-9	100	*
acetic acid	64-19-7	5000	*
1,4-dioxane	123-91-1	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : 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, methyloxirane, 1,4-dioxane, which is/are known to the State of California to cause cancer, and ethylene oxide, which is/are known to the State of California to cause 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:

- 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.

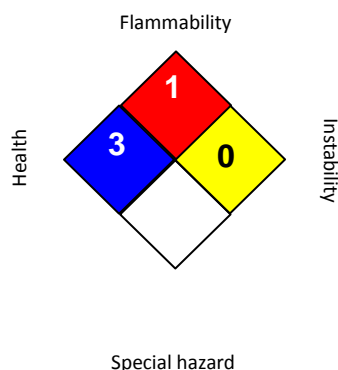
US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

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:

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 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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