

## TRI-STAR FLEXYLITE

## Section 1. Chemical product and company identification

Product name : TRI-STAR FLEXYLITE

Recommended use and restrictions : Laundry detergent

Use only for the purpose on the product label.

Product dilution information : Up to 3.07 oz/10 gal or 2.4 ml/L in water

Supplier's information : Ecolab Inc. Institutional Division  
370 N. Wabasha Street  
St. Paul, MN 55102  
1-800-352-5326

Code : 905222-02

Date of issue : 05 Apr 2013

EMERGENCY HEALTH INFORMATION: 1-800-328-0026  
Outside United States and Canada CALL 1-651-222-5352 (in USA)

## Section 2. Hazards identification

Product AS SOLD  
GHS Classification : SKIN CORROSION/IRRITATION - Category 1  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

## GHS label elements

Signal word : Danger

Symbol :



Hazard statements : Causes severe skin burns and eye damage.

## Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Wear protective clothing. Wash hands thoroughly after handling.

Response : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. 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 or physician.

## Product AT USE DILUTION

Not classified.

No signal word.

No known significant effects or critical hazards.

Wash thoroughly after handling.

Get medical attention if symptoms appear.

## Section 2. Hazards identification

|                      |                                                  |                                                |
|----------------------|--------------------------------------------------|------------------------------------------------|
| <b>Storage</b>       | : No other specific measures identified.         | No other specific measures identified.         |
| <b>Disposal</b>      | : See section 13 for waste disposal information. | See section 13 for waste disposal information. |
| <b>Other hazards</b> | : None known.                                    | None known.                                    |

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

### Product AS SOLD

| Hazardous ingredients                   | Concentration Range (%) | CAS number |
|-----------------------------------------|-------------------------|------------|
| TETRASODIUM EDTA                        | 5 - 20                  | 64-02-8    |
| alcohols, c12-14-secondary, ethoxylated | 1 - 5                   | 84133-50-6 |
| TRIETHANOLAMINE                         | 1 - 5                   | 102-71-6   |

### Product AT USE DILUTION

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting, in accordance with local regulations.

## Section 4. First aid measures

|                                   | Product AS SOLD                                                                                                                                                                                                                                                 | Product AT USE DILUTION                                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Eye contact</b>                | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.                                                                                                       | No known effect after eye contact. Rinse with water for a few minutes.  |
| <b>Skin contact</b>               | : Take off immediately all contaminated clothing. Rinse skin with water or shower. Get medical attention immediately. Wash clothing before reuse. Clean shoes thoroughly before reuse.                                                                          | No known effect after skin contact. Rinse with water for a few minutes. |
| <b>Inhalation</b>                 | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately.                                                                                                                                       | No special measures required. Treat symptomatically.                    |
| <b>Ingestion</b>                  | : Get medical attention immediately. Rinse mouth. Do not induce vomiting.                                                                                                                                                                                       | Get medical attention if symptoms occur.                                |
| <b>Protection of first-aiders</b> | : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |                                                                         |
| <b>Notes to physician</b>         | : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.                                                                                           |                                                                         |

See toxicological information (section 11)

## Section 5. Fire-fighting measures

### Product AS SOLD

|                                                   |                                                                                                                                             |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable fire extinguishing media</b>          | : Use water spray, fog or foam.                                                                                                             |
| <b>Specific hazards arising from the chemical</b> | : No specific fire or explosion hazard.                                                                                                     |
| <b>Hazardous thermal decomposition products</b>   | : Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>metal oxide/oxides |

## Section 5. Fire-fighting measures

|                                                       |                                                                                                                                                                                               |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Specific fire-fighting methods</b>                 | : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| <b>Special protective equipment for fire-fighters</b> | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                         |

## Section 6. Accidental release measures

|                                  | <b>Product AS SOLD</b>                                                                                                                                                                                                                                                                                                                                                                                           | <b>Product AT USE DILUTION</b>                                                                 |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>Personal precautions</b>      | : Initiate company's spill response procedures immediately. Keep people out of area. Put on appropriate personal protective equipment (see section 8). Do not touch or walk through spilled material.                                                                                                                                                                                                            | Use personal protective equipment as required.                                                 |
| <b>Environmental precautions</b> | : Avoid contact of spilled material and runoff with soil and surface waterways.                                                                                                                                                                                                                                                                                                                                  | Avoid contact of large amounts of spilled material and runoff with soil and surface waterways. |
| <b>Methods for cleaning up</b>   | : Follow company's spill procedures. Keep people away from spill. Put on appropriate personal protective equipment (see section 8). Absorb/neutralize liquid material. Use a tool to scoop up solid or absorbed material and put into appropriate labeled container. Use a tool to scoop up solid or absorbed material and place into appropriate labeled waste container. Use a water rinse for final clean-up. | Use a water rinse for final clean-up.                                                          |

## Section 7. Handling and storage

|                 | <b>Product AS SOLD</b>                                                                                                                         | <b>Product AT USE DILUTION</b>  |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>Handling</b> | : Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Use only with adequate ventilation. Wash thoroughly after handling. | Wash thoroughly after handling. |
| <b>Storage</b>  | : Keep out of reach of children. Keep container tightly closed.<br><br>Store between the following temperatures: 0 and 50°C                    | Keep out of reach of children.  |

## Section 8. Exposure controls/personal protection

### Control parameters

| <b>Ingredient name</b> | <b>Exposure limits</b>                                                         |
|------------------------|--------------------------------------------------------------------------------|
| TRIETHANOLAMINE        | <b>ACGIH TLV (United States, 3/2012).</b><br>TWA: 5 mg/m <sup>3</sup> 8 hours. |

|                                         | <b>Product AS SOLD</b>                                                                                                                                                                                                                                                                                                                                                                               | <b>Product AT USE DILUTION</b>                                                                     |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>Appropriate engineering controls</b> | : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard. | Good general ventilation should be sufficient to control worker exposure to airborne contaminants. |

## Section 8. Exposure controls/personal protection

### Personal protection

|                               |                                                                                                                                                                                                                                                                                                |                                                                                 |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| <b>Eye protection</b>         | : Use chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.                                                                                                                                                                                           | No protective equipment is needed under normal use conditions.                  |
| <b>Hand protection</b>        | : Use chemical-resistant, impervious gloves.                                                                                                                                                                                                                                                   | No protective equipment is needed under normal use conditions.                  |
| <b>Skin protection</b>        | : Use synthetic apron, other protective equipment as necessary to prevent skin contact.                                                                                                                                                                                                        | No protective equipment is needed under normal use conditions.                  |
| <b>Respiratory protection</b> | : A respirator is not needed under normal and intended conditions of product use.                                                                                                                                                                                                              | A respirator is not needed under normal and intended conditions of product use. |
| <b>Hygiene measures</b>       | : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. |                                                                                 |

## Section 9. Physical and chemical properties

| Product AS SOLD                               |                                                                                                            | Product AT USE DILUTION |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>Physical state</b>                         | : slurry                                                                                                   | Liquid.                 |
| <b>Color</b>                                  | : Red                                                                                                      | Pale color              |
| <b>Odor</b>                                   | : Fragrance-like                                                                                           | Faint odor              |
| <b>pH</b>                                     | : 12.7 to 13.5 (100%)                                                                                      | 8.7 to 10               |
| <b>Flash point</b>                            | : > 100°C<br>Product does not support combustion.                                                          | > 100°C                 |
| <b>Explosion limits</b>                       | : Not available.                                                                                           |                         |
| <b>Flammability (solid, gas)</b>              | : Not available.                                                                                           |                         |
| <b>Melting point</b>                          | : Not available.                                                                                           |                         |
| <b>Boiling point</b>                          | : >100°C (>212°F)                                                                                          |                         |
| <b>Evaporation rate (butyl acetate = 1)</b>   | : Not available.                                                                                           |                         |
| <b>Vapor pressure</b>                         | : Not available.                                                                                           |                         |
| <b>Vapor density</b>                          | : Not available.                                                                                           |                         |
| <b>Relative density</b>                       | : 1.08 to 1.14 (Water = 1)                                                                                 |                         |
| <b>Solubility</b>                             | : Easily soluble in the following materials: hot water.<br>Soluble in the following materials: cold water. |                         |
| <b>Partition coefficient: n-octanol/water</b> | : Not available.                                                                                           |                         |
| <b>Auto-ignition temperature</b>              | : Not available.                                                                                           |                         |
| <b>Decomposition temperature</b>              | : Not available.                                                                                           |                         |
| <b>Odor threshold</b>                         | : Not available.                                                                                           |                         |
| <b>Viscosity</b>                              | : Dynamic (room temperature): 325 mPa·s (325 cP)                                                           |                         |

## Section 10. Stability and reactivity

### Product AS SOLD

- Stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : Reactive or incompatible with the following materials: acids.  
Slightly reactive or incompatible with the following materials: organic materials and metals.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

**Route of exposure** : Skin contact, Eye contact, Inhalation, Ingestion

### Product AS SOLD

#### Symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Inhalation** : Adverse symptoms may include the following:  
coughing  
Respiratory tract irritation
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

#### Acute toxicity

- Eye contact** : Causes serious eye damage.
- Skin contact** : Causes severe burns.
- Inhalation** : May cause respiratory irritation.
- Ingestion** : May cause burns to mouth, throat and stomach.

### Product AT USE DILUTION

No specific data.

No specific data.

No specific data.

No specific data.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

#### Toxicity data

##### Product/ingredient name

|                                                          |             |        |             |
|----------------------------------------------------------|-------------|--------|-------------|
| acetic acid, (ethylenedinitrilo)tetra-, tetrasodium salt | LD50 Oral   | Rat    | 1700 mg/kg  |
| alcohols, c12-14-secondary, ethoxylated                  | LD50 Dermal | Rabbit | >2000 mg/kg |
|                                                          | LD50 Oral   | Rat    | >3000 mg/kg |
| triethanolamine                                          | LD50 Dermal | Rabbit | >2000 mg/kg |
|                                                          | LD50 Oral   | Rat    | 6400 mg/kg  |

#### Chronic toxicity

- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

## Section 12. Ecological information

### Product AS SOLD

**Ecotoxicity** : No known significant effects or critical hazards.

### Aquatic and terrestrial toxicity

| Product/ingredient name                                  | Result                | Species | Exposure |
|----------------------------------------------------------|-----------------------|---------|----------|
| acetic acid, (ethylenedinitrilo)tetra-, tetrasodium salt | Acute LC50 121 mg/l   | Fish    | 96 hours |
| alcohols, c12-14-secondary, ethoxylated                  | Acute LC50 3.4 mg/l   | Fish    | 96 hours |
| triethanolamine                                          | Acute LC50 11800 mg/l | Fish    | 96 hours |

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

### Product AS SOLD

**Disposal methods** : Avoid disposal. Attempt to use product completely in accordance with intended use. Disposal should be in accordance with applicable regional, national and local laws and regulations.

**RCRA classification** : Unused product is D002 (Corrosive)

### Product AT USE DILUTION

Diluted product can be flushed to sanitary sewer. Discard empty container in trash.

## Section 14. Transport information

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

### DOT

**DOT Classification** Not regulated.

### IMO/IMDG

**IMO/IMDG Classification** Not regulated.

For transport in bulk, see shipping documents for specific transportation information.

### Product AT USE DILUTION

Not intended for transport.

## Section 15. Regulatory information

### Product AS SOLD

### U.S. Federal regulations

**TSCA 8(b) inventory** : All components are listed or exempted.

**SARA 302/304/311/312 extremely hazardous substances:** No listed substance

**SARA 302/304 emergency planning and notification:** No listed substance

| <u>SARA 313</u> | <u>Product name</u> | <u>CAS number</u> | <u>Concentration</u> |
|-----------------|---------------------|-------------------|----------------------|
|-----------------|---------------------|-------------------|----------------------|

**Form R - Reporting requirements** : No listed substance

**California Prop. 65** : No listed substance

## Section 16. Other information

### Product AS SOLD

Hazardous Material :  
Information System (U.S.A.)

|                  |   |   |
|------------------|---|---|
| Health           | * | 3 |
| Flammability     |   | 0 |
| Physical hazards |   | 0 |
|                  |   |   |

National Fire Protection :  
Association (U.S.A.)



### Product AT USE DILUTION

|                  |  |   |
|------------------|--|---|
| Health           |  | 0 |
| Flammability     |  | 0 |
| Physical hazards |  | 0 |
|                  |  |   |



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### Notice to reader

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.