

Section 1. Chemical product and company identification

Product name : TRI-STAR TURBO BOOST
Recommended use and restrictions : Laundry detergent
 Use only for the purpose on the product label.

Product dilution information : Up to 0.2 oz/gal or 1.6 mL/L in water

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

Code : 904839-01

Date of issue : **23 Aug 2013**
 EMERGENCY HEALTH INFORMATION: 1-800-328-0026
 Outside United States and Canada CALL 1-651-222-5352 (in USA)

Section 2. Hazards identification

GHS Classification : **Product AS SOLD**
 : FLAMMABLE LIQUIDS - Category 3
 SKIN CORROSION/IRRITATION - Category 2
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1

GHS label elements

Signal word : Warning

Symbol :  

Hazard statements : Flammable liquid and vapor.
 Causes serious eye irritation.
 Causes skin irritation.
 May cause an allergic skin reaction.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Keep container tightly closed. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response :

Product AT USE DILUTION

Not classified.

No signal word.

No known significant effects or critical hazards.

Wash thoroughly after handling.

Section 2. Hazards identification

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Get medical attention if symptoms appear.

- Storage** : Store in a well-ventilated place. Keep cool.
Disposal : See section 13 for waste disposal information.
Other hazards : None known.

No other specific measures identified.
 See section 13 for waste disposal information.
 None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product AS SOLD

Hazardous ingredients	Concentration Range (%)	CAS number
Limonene	>50	5989-27-5
alcohols, c12-15, ethoxylated	5 - 20	68131-39-5
alcohols, c12-18, ethoxylated	5 - 20	68213-23-0
benzenesulfonic acid, decyl(sulfophenoxy)-, disodium salt	1 - 5	36445-71-3

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
Eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists.	No known effect after eye contact. Rinse with water for a few minutes.
Skin contact	: Take off contaminated clothing. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.	No known effect after skin contact. Rinse with water for a few minutes.
Inhalation	: No special measures required. Treat symptomatically.	No special measures required. Treat symptomatically.
Ingestion	: Get medical attention if symptoms occur.	Get medical attention if symptoms occur.
Protection of first-aiders	: 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.	
Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.	
See toxicological information (section 11)		

Section 5. Fire-fighting measures

Product AS SOLD	
Suitable fire extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Specific hazards arising from the chemical	: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides metal oxide/oxides
Specific fire-fighting methods	: 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: 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

	Product AS SOLD	Product AT USE DILUTION
Personal precautions	: Eliminate all ignition sources. Use personal protective equipment as required. Do not touch or walk through spilled material.	Use personal protective equipment as required.
Environmental precautions	: Avoid contact of large amounts 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.
Methods for cleaning up	: If emergency personnel are not present, contain and collect small spillages with non-combustible absorbent material, e.g. sand, earth or other suitable material and place in a suitable container for disposal. Use a water rinse for final clean-up.	Use a water rinse for final clean-up.

Section 7. Handling and storage

	Product AS SOLD	Product AT USE DILUTION
Handling	: Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. To avoid fire, eliminate ignition sources. Use only with adequate ventilation. Wash thoroughly after handling.	Wash thoroughly after handling.
Storage	: Keep out of reach of children. Keep container tightly closed. Keep container tightly closed and sealed until ready for use. Keep container in a cool, well-ventilated area. Avoid all possible sources of ignition (spark or flame). Store in a segregated and approved area. Store between the following temperatures: 0 and 40°C	Keep out of reach of children.

Section 8. Exposure controls/personal protection

Control parameters

Ingredient name	Exposure limits
Limonene	AIHA WEEL (United States, 5/2010). TWA: 30 ppm 8 hours.

	Product AS SOLD	Product AT USE DILUTION
Appropriate engineering controls	: 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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Personal protection		
Eye protection	: Wear eye protection.	No protective equipment is needed under normal use conditions.
Hand protection	: Use chemical-resistant, impervious gloves.	No protective equipment is needed under normal use conditions.
Skin protection	: Use suitable protective equipment.	No protective equipment is needed under normal use conditions.
Respiratory protection	: 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.
Hygiene measures	: 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
Physical state	: Liquid.	Liquid.
Color	: Yellow [Light]	Colorless
Odor	: citrus	citrus
pH	: 4.5 to 6.5 (100%)	5 to 7
Flash point	: 51 °C (Open cup)	> 100°C
Explosion limits	: Not available.	
Flammability (solid, gas)	: Not available.	
Melting point	: Not available.	
Boiling point	: >100°C (>212°F)	
Evaporation rate (butyl acetate = 1)	: Not available.	
Vapor pressure	: Not available.	
Vapor density	: Not available.	
Relative density	: 0.87 to 0.91 (Water = 1)	
Solubility	: Partially soluble in the following materials: cold water and hot water.	
Partition coefficient: n-octanol/water	: Not available.	

Section 9. Physical and chemical properties

Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Odor threshold	: Not available.
Viscosity	: Not available.

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	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Materials to avoid	: Not available.
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 or irritation watering redness
Skin contact	: Adverse symptoms may include the following: irritation redness
Inhalation	: No specific data.
Ingestion	: No specific data.
Acute toxicity	
Eye contact	: Causes serious eye irritation.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

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

(r)-p-mentha-1,8-diene	LD50 Dermal	Rabbit	>5000 mg/kg
	LD50 Oral	Rat	4400 mg/kg
alcohols, c12-15, ethoxylated	LD50 Dermal	Rat	>2000 mg/kg
	LD50 Oral	Rat	1700 mg/kg
alcohols, c12-18, ethoxylated	LD50 Dermal	Rabbit	>2000 mg/kg
	LD50 Oral	Rat	1700 mg/kg
benzenesulfonic acid, decyl(sulfophenoxy)-, disodium salt	LD50 Dermal	Rat	>2000 mg/kg
	LD50 Oral	Rat	>1500 mg/kg

Section 11. Toxicological information

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 : Water polluting material. May be harmful to the environment if released in large quantities. This material is very toxic to aquatic life with long lasting effects.

Aquatic and terrestrial toxicity

Product/ingredient name	Result	Species	Exposure
alcohols, c12-15, ethoxylated	Acute LC50 1.4 mg/l	Fish	96 hours
alcohols, c12-18, ethoxylated	Acute LC50 1.5 mg/l	Fish	96 hours
benzenesulfonic acid, decyl(sulfophenoxy)-, disodium salt	Chronic LC50 3 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 D001 (Ignitable)

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	UN1993
DOT Proper shipping name	Flammable liquids, n.o.s. (D-limonene)
Class	3
Packing group	III

IMO/IMDG

IMO/IMDG Classification	UN1993
IMO/IMDG Proper shipping name	FLAMMABLE LIQUID, N.O.S.. (D-limonene). Marine pollutant
Class	3
Packing group	III

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

SARA 313	Product name	CAS number	Concentration
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		2
Flammability		2
Physical hazards		0

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



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 1-800-352-5326

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.

Product AT USE DILUTION

Health		0
Flammability		0
Physical hazards		0

