

OSHA

Hazard Communication Standard

Complying with the NEW 2013 Global Harmonization System

Lisa Wheeler BSN, MPH, CHSP

safetylisa@occutech.com

925-294-8464

Reference to OSHA Regulations



- Federal OSHA has issued final rule to revise the Hazard Communication Standard (HCS)
 - Federal OSHA 29 CFR 1910.1200
- Cal OSHA adopted the HCS revision on May 6, 2013
 - ***Cal OSHA Regulations - Title 8 Section 5194***

<http://www.osha.gov/dsg/hazcom/index.html>.

Hazard Communication Standard 1990



Cal OSHA Regulations - Title 8 Section 5194

- 1. Inventory of Chemical Hazards***
- 2. Materials Safety Data Sheets (SDS for each)***
- 3. Container Labeling***
- 4. Personal Protective Equipment (PPE)***
- 5. Training***



December 1, 2013 Changes

All employees must receive training on the new;

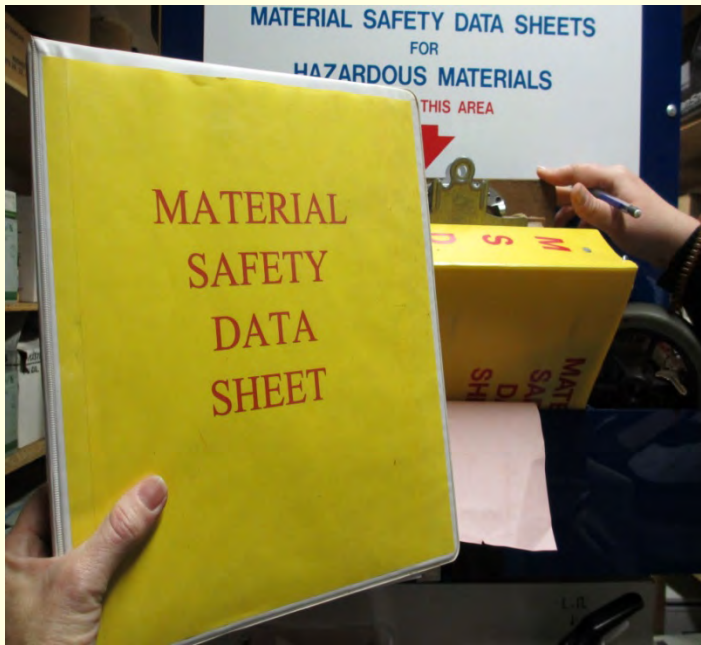
- 1 Safety Data Sheets (SDS)**
- 2 Hazard Classification**
- 3 Labels**

December 1, 2013 Changes

1. Safety Data Sheets (SDS):

Formally **MSDS** and **now, they are known as SDS**

They have a NEW format with 16 sections



New SDS Requirements



1. Identification of chemical product and supplier
2. Hazards identification (**New Classification**)
3. Composition/information on ingredients Substance/Mixture
4. First aid measures
5. Firefighting measures
6. Accidental release measures
7. Handling and storage
8. Exposure controls/personal protection.
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicological
12. *Ecological information (non mandatory)*
13. *Disposal considerations (non mandatory)*
14. *Transport information (non mandatory)*
15. *Regulatory information (non mandatory)*
16. Other information including information on preparation and revision of the SDS

SDS Requirements



1. **Identification of chemical product, supplier, substance,** address, phone, emergency number recommended use and restrictions on use
2. **Hazards identification** includes all hazards regarding the chemical; required label requirements.

This is the biggest are of change - New Classification

- Signal Word
- Symbol – Pictogram
- Hazard Statement(s)
- Precautionary statement(s)
- Supplier Info

SDS Requirements



3. **Composition/information on ingredients** includes information on chemical ingredients; trade secret claims.
4. **First aid measures** include important symptoms/effects, acute, delayed; required treatment.
5. **Fire Fighting measures** lists suitable extinguishing techniques, equipment, chemical hazards from fire.
6. **Accidental release measures** lists emergency procedures; protective equipment; proper methods of containment and clean-up.

SDS Requirements



7. **Handling and storage** lists precautions for safe handling and storage, including incompatibilities.
8. **Exposure controls and personal protection** lists OSHA's Permissible Limits (PELs), Threshold Values and PPE.
9. **Physical and chemical properties** lists the chemicals characteristics.
10. **Stability and reactivity** lists chemical stability and possibility of hazardous reactions.

SDS Requirements



11. **Toxicological information** includes routes of exposure, related symptoms; acute and chronic effects; numerical measures of toxicity.
12. **Ecological Information** *
13. **Disposal considerations** *
14. **Transportation information** *
15. **Regulatory information** *
16. **Other information** includes the date of preparation or last revision.

* non mandatory

Full Compliance by manufactures and suppliers by June 2015

Material Safety Data Sheet **ECOLAB**
Oasis 500

BEFORE

1. Product and company identification

Product Name: Oasis 500
 Description: Disinfecting product
 Concentration: 1.32 oz/gal or 54.8 mL/L in water

Supplier's Information:
 Ecolab Inc., Institutional Division
 375 N. Wabasha Street
 St. Paul, MN 55102
 1-800-352-6326

Code: 917260-05
 Date of issue: 12 Feb 2013
 EMERGENCY HEALTH INFORMATION: 1-800-328-0028
 Outside United States and Canada CALL 1-451-223-6332 (in USA)

2. Hazards identification

Product AS SOLD	Product AT USE DILUTION
Physical state : Liquid Emergency overview : WARNING1 CAUSES EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.	Physical state : Liquid Emergency overview : CAUTION1 MAY CAUSE EYE IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
Chronic acute health effects Eyes : Severely irritating to eyes. Skin : Irritating to skin. May cause sensitization by skin contact. Inhalation : Slightly irritating to the respiratory system. Ingestion : No known significant effects or critical hazards.	Chronic acute health effects Eyes : Moderately irritating to eyes. Skin : Slightly irritating to skin. May cause sensitization by skin contact. Inhalation : No known significant effects or critical hazards. Ingestion : No known significant effects or critical hazards.

3. Composition/information on ingredients

Product AS SOLD	CAS number	% by weight
Name: 2,2-midichloroethanol	111-43-2	13
Limonic acid	5089-27-5	5 - 20

Product AT USE DILUTION	CAS number	% by weight
Name: 2,2-midichloroethanol	111-43-2	4
Limonic acid	5089-27-5	1 - 5

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SAFETY DATA SHEET **ECOLAB**
Oasis 500

AFTER

Section 1. Chemical product and company identification

Product Name: Oasis 500
 Description: Disinfecting product
 Concentration: 1.32 oz/gal or 54.8 mL/L in water

Supplier's Information:
 Ecolab Inc., Institutional Division
 375 N. Wabasha Street
 St. Paul, MN 55102
 1-800-352-6326


Code: 917260-05
 Date of issue: 12 Feb 2013
 EMERGENCY HEALTH INFORMATION: 1-800-328-0028
 Outside United States and Canada CALL 1-451-223-6332 (in USA)

Section 2. Hazards identification

GHS Classification

Product AS SOLD	Product AT USE DILUTION
SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 AQUATIC TOXICITY (ACUTE) - Category 3 AQUATIC TOXICITY (CHRONIC) - Category 3	(SERIOUS EYE DAMAGE) EYE IRRITATION - Category 2B SKIN SENSITIZATION - Category 1 AQUATIC TOXICITY (ACUTE) - Category 3


Signal word: Warning

Pictogram: 

Hazard statements: Causes serious eye irritation. May cause an allergic skin reaction. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention: Wear protective gloves. Wear eye or face protection. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response: 

Wear eye protection. Avoid eye contact. May cause an allergic skin reaction. Harmful to aquatic life.

Wear protective gloves. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

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December 1, 2013 Changes

2. **Hazard classification:** Provides specific criteria for classification of health and physical hazards

This is the biggest are of change- New Classification

- **Signal Word**
- **Symbol – Pictogram**
- **Hazard Statement(s)**
- **Precautionary statement(s)**
- **Supplier Info**

Physical Hazards are divided into 16 groups;

- 1. Explosives**
- 2. Flammable gases**
- 3. Flammable aerosols**
- 4. Oxidizing gases**
- 5. Gases under pressure**
- 6. Flammable liquids**
- 7. Flammable solids**
- 8. Self-Reactive substances**
- 9. Pyrophoric liquids**
- 10. Pyrophoric solids**
- 11. Self-heating substances**
- 12. Substances which, in contact with water, emit flammable gases**
- 13. Oxidizing liquids**
- 14. Oxidizing solids**
- 15. Organic peroxides**
- 16. Corrosive to metals**

Health Hazards are divided into 10 groups;



1. **Acute toxicity**
2. **Skin corrosion/irritation**
3. **Respiratory or skin sensitization**
4. **Serious eye damage/eye irritation**
5. **Germ cell mutagenicity**
6. **Carcinogenicity**
7. **Reproductive toxicology**
8. **Target organ systemic toxicity- single exposure**
9. **Target organ systemic exposure- repeated exposure**
10. **Aspiration toxicity**

SAFETY DATA SHEET

ECC

OASIS 146 MULTI-QUAT SANITIZER

Section 1. Chemical product and company identification

Product name : OASIS 146 MULTI-QUAT SANITIZER
Recommended use and restrictions : Sanitizer
Use only for the purpose on the product label

Product dilution information : Up to 4 oz/gal in water

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

Code : 910787
Date of issue : 06 Aug 2013
EPA Registration No. : 1677-198

EMERGENCY HEALTH INFORMATION: 1-800-328-0028
Outside United States and Canada CALL 1-851-222-5352 (in USA)

Section 2. Hazards identification

GHS Classification

Product AS SOLD

ACUTE TOXICITY: ORAL - Category 4
SKIN CORROSION/IRRITATION - Category 1B
SERIOUS EYE DAMAGE/ EYE IRRITATION -
Category 1

Product AT USE DILUTION
SERIOUS EYE DAMAGE/ E
- Category 2B

GHS label elements

1 Signal word : Danger

2 Symbol :



3 Hazard statements : Harmful if swallowed.
Causes severe skin burns and eye damage.

4 Precautionary statements

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

Warning

Causes eye irritation.

Wash hands thoroughly at

December 1, 2013 Changes

...Packaging, and secondary containers

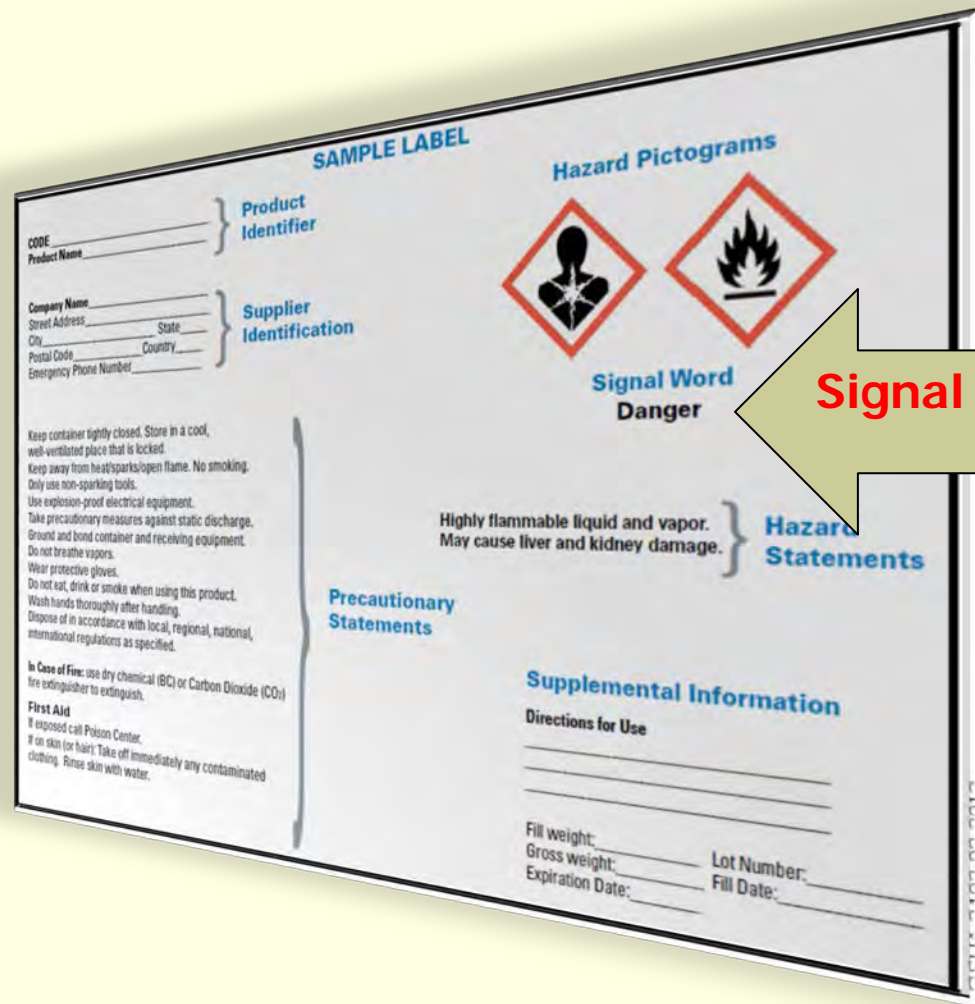
3. Labels: Chemical manufacturers and importers will be required to provide a label that includes a

- 1) Signal word
- 2) Pictogram
- 3) Hazard statement for each hazard class and category
- 4) Precautionary statement
- 5) Supplier Information
 - name, address and phone number



New Label

1. Signal Words



Signal Word (Two)
Danger or Warning

New Label

2. Pictogram



Flame



Flame Over Circle



Exploding Bomb



Corrosion



Gas Cylinder



Skull And Crossbones



Exclamation Mark



Environmental



Health Hazard

■ Flame

Pictogram

- **Flammable Chemicals that are self heating**
- **Emit flammable gas**
- **Self reactive**



■ Flame over Circle

Pictogram –

- Oxidizers that promotes combustion such as oxygen



■ Exploding Bomb

Pictogram

- Exploding bomb to declare explosives and violent self-reactives like organic peroxides



■ Corrosion

Pictogram

- Corrosive chemicals which **can** burn skin, damage eyes, and corrode metals.
- This is important to know for **appropriate PPE use** and proper storage.



■ Gas Cylinder

Pictogram

- Compressed gases



■ Skull and Crossbones

Pictogram

- chemicals of acute toxicity, perhaps even fatal.



■ Exclamation Mark

Pictogram

➤ warns of an irritant to skin or eyes, skin sensitization, narcotic effects, or a respiratory tract irritant.



■ Environment

Pictogram

- chemicals with aquatic toxicity



■ Health Hazard

Pictogram

➤ Health hazards from chemical use which might include cancer, birth defects, sterility, or other target organ toxicity.




New Label

3. Hazard Statement

SAMPLE LABEL

<p>CODE _____ Product Name _____</p>	}	<p>Product Identifier</p>	
<p>Company Name _____ Street Address _____ City _____ State _____ Postal Code _____ Country _____ Emergency Phone Number _____</p>	}	<p>Supplier Identification</p>	

Hazard Pictograms



Signal Word
Danger

<p>Keep container tightly closed. Store in a cool, well-ventilated place that is locked.</p> <p>Keep away from heat, open flames, and other sources of ignition.</p> <p>Do not breathe vapors.</p> <p>Do not get in eyes, on skin, or on clothing.</p> <p>Wash hands thoroughly after handling.</p> <p>Dispose of in accordance with local, regional, national, international regulations as specified.</p> <p>In Case of Fire: use dry chemical (BC) or Carbon Dioxide (CO₂) fire extinguisher to extinguish.</p> <p>First Aid If exposed call Poison Center. If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.</p>		<p>Highly flammable liquid and vapor. May cause liver and kidney damage.</p>	}	<p>Hazard Statements</p>
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Supplemental Information

Directions for Use

Fill weight: _____ Lot Number: _____
Gross weight: _____ Fill Date: _____
Expiration Date: _____

Highly flammable liquid and vapor
May cause liver or kidney damage

New Label

4. Precautionary Statement

SAMPLE LABEL

CODE _____ }
Product Name _____ } **Product Identifier**

Company Name _____ }
Street Address _____ }
City _____ State _____ } **Supplier Identification**
Postal Code _____ Country _____ }
Emergency Phone Number _____ }

Hazard Pictograms



Signal Word
Danger

Highly flammable liquid and vapor. } **Hazard Statements**
May cause liver and kidney damage. }

PRECAUTIONARY STATEMENTS

Keep container tightly closed. Store in cool, well ventilated place that is locked.
Keep away from heat/sparks/open flame. No smoking.
Only use non-sparking tools.
Use explosion-proof electrical equipment.
Take precautionary measure against static discharge.
Ground and bond container and receiving equipment.
Do not breathe vapors.
Wear Protective gloves.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
Dispose of in accordance with local, regional, national, international regulations as specified.

Precautionary Statement


Supplemental Information

Directions for Use

Fill weight: _____ Lot Number: _____
Gross weight: _____ Fill Date: _____
Expiration Date: _____

New Label

5. Supplier Information

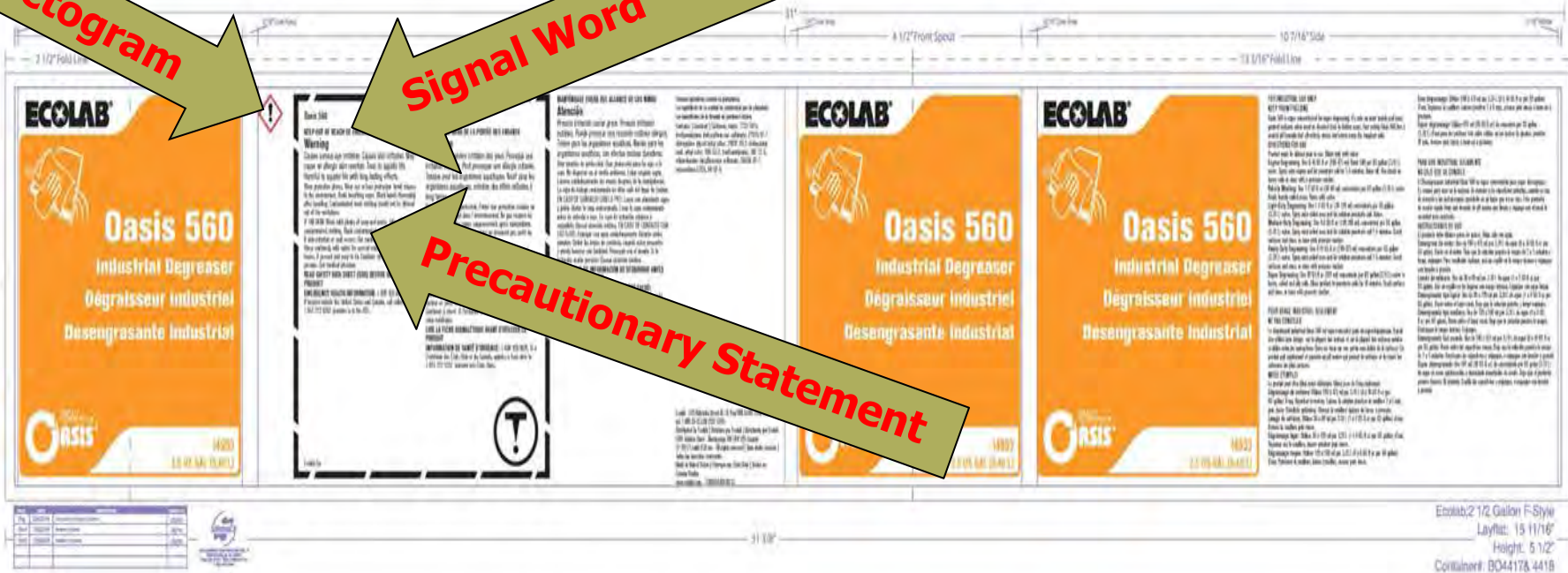
Sample Label (XYZ Company)	
<p>Product Name _____ Product Code _____</p>	<p>Company Name _____ Street Address _____ City _____ State _____ Postal Code _____ Country _____ Phone Number _____</p>
<p>Keep container tightly closed. Store in a cool, well-ventilated area. Keep away from heat/sparks/open flame. No smoking. Use only non-sparking tools. Use explosion-proof electrical equipment. Take precautionary measures against static discharge. Ground and bond container and receiving equipment. Do not breathe vapors. Wear protective gloves. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Dispose of in accordance with local, regional, national and international regulations as specified.</p>	<p>Name, address, phone, etc.</p>  <p>Danger</p> <p>Highly flammable liquid and vapor. May cause liver and kidney damage.</p>
<p>In Case of Fire: use dry chemical (BC) fire extinguisher</p>	
<p>First Aid If exposed call Poison Control If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.</p>	<p>Directions for Use Fill Weight: _____ Lot Number: _____ Gross Weight: _____ Fill Date: _____ Expiration Date: _____</p>

New Secondary Container Label

Pictogram

Signal Word

Precautionary Statement



Ecolab/2.12 Gallon F-Syle
Layout: 15 11/16"
Height: 5 1/2"
Container: B044178-4418

DIAGRAM 8
REV 04

Summary of HCS-GHS Changes

New Signal Words

“Warning” – less severe hazard

“Danger” – more

Standardized Hazard Statements

**Examples – “Highly flammable liquid and vapor”,
“Causes skin irritation”**

Standardized Pecautionary Statements

**Examples – “Wear protective gloves”, “Do not
breathe vapors”**

Pictogram



OSHA – Final Rule

■ Effective Dates:

- **12/1/13: All employees must be trained on new label elements and SDS format**
- 6/1/15: Manufacturers and distributors must comply with all modified provisions except that distributors have until 12/1/15 to provide revised labels for all products shipped.
- 6/1/16: OSHA enforcement starts: Employers must update all labels and HazCom program, provide additional training for workers on newly identified physical or health hazards
- During transition period, employers can comply with old or new standard as far as labels and SDSs.

Safety Data Sheets (SDS) Formerly Material Safety Data Sheets

Material Safety Data Sheet **ECOLAB**
Case 560

1. Product and company identification

BEFORE

Product Name: Case 560
 Description: Disinfectant
 Concentration: 12.5% (w/v) (250 mg/L) in water

Supplier's information:
 Ecolab Inc. Instructional Division
 375 N. Wisconsin Street
 St. Paul, MN 55102
 1-800-352-5326

Code: 917260-05
 Date of issue: 12 Feb 2013
 EMERGENCY HEALTH INFORMATION: 1-800-326-0028
 Outside United States and Canada CALL 1-851-322-5352 (in USA)

2. Hazards identification

Physical state Liquid Emergency overview CAUSES EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.	Product AT USE DILUTION Liquid CAUTION: MAY CAUSE EYE IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
Potential acute health effects Eye Irritating to eyes. Skin Irritating to skin. May cause sensitization by skin contact. Inhalation Slightly irritating to the respiratory system. Ingestion No known significant effects or uses.	Product AT USE DILUTION Liquid Slightly irritating to the eyes. May cause sensitization by skin contact. No known significant effects or uses.

3. Composition/information on ingredients

Product AS SOLD	CAS number	% by weight
Name: 2,2-dimethylbutane-1-thiol	111-42-2	5
Limonic acid	966-27-6	5-20

Product AT USE DILUTION	CAS number	% by weight
Name: 2,2-dimethylbutane-1-thiol	111-42-2	5
Limonic acid	966-27-6	1-5

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SAFETY DATA SHEET **ECOLAB**
Case 560

Section 1. Chemical product and company identification

AFTER

Product Name: Case 560
 Description: Disinfectant
 Concentration: 12.5% (w/v) (250 mg/L) in water


Supplier's information:
 Ecolab Inc. Instructional Division
 375 N. Wisconsin Street
 St. Paul, MN 55102
 1-800-352-5326

Code: 917260-05
 Date of issue: 12 Feb 2013
 EMERGENCY HEALTH INFORMATION: 1-800-326-0028
 Outside United States and Canada CALL 1-851-322-5352 (in USA)

Section 2. Hazards identification

GHS Classification

Signal word: Warning

Symbol: 

Hazard statements

- H312 Causes serious eye irritation.
- H332 May cause an allergic skin reaction.
- H410 Toxic to aquatic life, harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

- P273 Wear protective gloves. Wash eye or face thoroughly. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response

- R601 Avoid eye contact.
- R602 May cause an allergic skin reaction. Harmful to aquatic life.

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SAFETY DATA SHEET

ECOLAB

Oasis 560

Section 1. Chemical product and company identification

Product name : Oasis 560
Recommended use and restrictions : Degreaser
 Use only for the purpose on the product label.

Product dilution information : Up to 20 oz/gal or 156 mL/L in water

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

Code : 917260-05
Date of issue : 13 Mar 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 2
 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1
 AQUATIC TOXICITY (ACUTE) - Category 2
 AQUATIC TOXICITY (CHRONIC) - Category 3

GHS label elements

Signal word : Warning



Hazard statements : Causes serious eye irritation.
 Causes skin irritation.
 May cause an allergic skin reaction.
 Toxic to aquatic life.
 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response

Product AT USE DILUTION
 SKIN SENSITIZATION - Category 1
 AQUATIC TOXICITY (ACUTE) - Category 3

Warning



May cause an allergic skin reaction.
 Harmful to aquatic life

Wear protective gloves. Avoid release to the environment. Avoid breathing vapor. Contaminated work clothing should not be allowed out of the workplace

Oasis 560

13 Mar 2013

Section 2. Hazards identification

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. 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.

IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

Storage : No other specific measures identified.
Disposal : See section 13 for waste disposal information.

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

Other hazards : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product AS SOLD

Hazardous ingredients	Concentration Range (%)	CAS number
TEA-DODECYLBENZENESULFONATE	24	27323-41-7
ETHYL LAURATE	5 - 20	106-33-2
TRIETHANOLAMINE	5 - 20	102-71-6
benzenesulfonic acid, dodecyl-, compd. with 2-aminoethanol (1:1)	5 - 20	26836-07-7
TETRASODIUM EDTA	1 - 5	64-02-8
Limonene	1 - 5	5989-27-5

Product AT USE DILUTION

Hazardous ingredients	Concentration Range (%)	CAS number
TEA-DODECYLBENZENESULFONATE	4	27323-41-7
ETHYL LAURATE	1 - 5	106-33-2
TRIETHANOLAMINE	1 - 5	102-71-6
benzenesulfonic acid, dodecyl-, compd. with 2-aminoethanol (1:1)	1 - 5	26836-07-7
Limonene	<1.0	5989-27-5

Section 4. First aid measures

Product AS SOLD
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.
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.
Inhalation : No special measures required. Treat symptomatically.
Ingestion : Get medical attention if symptoms occur.

Product AT USE DILUTION
 No known effect after eye contact. Rinse with water for a few minutes.
 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 special measures required. Treat symptomatically.
 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.

Section 4. First aid measures

Notes to physician : 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

Suitable fire extinguishing media : Use water spray, fog or foam.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life. This material is harmful to aquatic life with long lasting effects. 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
nitrogen oxides
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.

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 pressure mode.

Section 6. Accidental release measures

Product AS SOLD

Personal precautions : Use personal protective equipment as required.

Environmental precautions : Avoid contact of large amounts of spilled material and runoff with soil and surface waterways.

Methods for cleaning up : Use a water rinse for final clean-up.

Product AT USE DILUTION

Use personal protective equipment as required.

Avoid contact of large amounts of spilled material and runoff with soil and surface waterways.

Use a water rinse for final clean-up.

Section 7. Handling and storage

Product AS SOLD

Handling : Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Storage : Keep out of reach of children. Keep container tightly closed.

Store between the following temperatures: 0 and 50°C

Product AT USE DILUTION

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Keep out of reach of children.

Section 8. Exposure controls/personal protection

Control parameters

Ingredient name	Exposure limits
TRIETHANOLAMINE	ACGIH TLV (United States, 3/2012). TWA: 5 mg/m ³ 8 hours.
Limonene	AIHA WEEL (United States, 5/2010). TWA: 30 ppm 8 hours.

Section 8. Exposure controls/personal protection

Product AS SOLD
Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protection
Eye protection : Wear eye protection.

Hand protection : Use chemical-resistant, impervious gloves.

Skin protection : Use suitable protective equipment.

Respiratory protection : 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.

Product AT USE DILUTE
 Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

No protective equipment is needed under normal use conditions.

Use chemical-resistant, impervious gloves.

Use suitable protective equipment.

A respirator is not needed under normal and intended conditions of product use.

Section 9. Physical and chemical properties

Product AS SOLD
Physical state : Liquid.
Color : Amber
Odor : citrus
pH : 8 to 8.9 (100%)
Flash point : Product does not support combustion.

Explosion limits : Not available.

Flammability (solid, gas) : Not available.

Melting point : Not available.

Boiling point : Not available.

Evaporation rate (butyl acetate = 1) : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 1.035 to 1.065 (Water = 1)

Solubility : Easily soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Odor threshold : Not available.

Viscosity : Dynamic (room temperature): 200 mPa s (200 cP)

Product AT USE DILUTE
 Liquid.
 Amber [Light]
 citrus
 7 to 9
 > 100°C

8.

9.

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 : 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.

Toxicity data

Product/ingredient name	Result	Species	Dose
ethyl laurate	LD50 Dermal	Rabbit	>2000 mg/kg
	LD50 Oral	Rat	>5000 mg/kg
triethanolamine	LD50 Dermal	Rabbit	>2000 mg/kg
	LD50 Oral	Rat	6400 mg/kg
acetic acid, (ethylenedinitrilo)tetra-, tetrasodium salt	LD50 Oral	Rat	1700 mg/kg
	LD50 Oral	Rat	1700 mg/kg
(r)-p-mentha-1,8-diene	LD50 Dermal	Rabbit	>5000 mg/kg
	LD50 Oral	Rat	4400 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.

Product AT USE DILUTE

No specific data.

Adverse symptoms may include the following:
 irritation
 redness

No specific data.

No specific data.

No known significant effects or critical hazards.

May cause an allergic skin reaction.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

8.

9.

10.

11.

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 toxic to aquatic life. This material is harmful to aquatic life with long lasting effects.

Aquatic and terrestrial toxicity

Product/ingredient name	Result	Species	Exposure
ethyl laurate	Acute LC50 0.5 mg/l	Fish	96 hours
triethanolamine	Acute LC50 11800 mg/l	Fish	96 hours
acetic acid, (ethylenedinitrilo)tetra-, tetrasodium salt	Acute LC50 121 mg/l	Fish	96 hours

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

Section 13. Disposal considerations

Product AS SOLD	Product AT USE DILUTION
Disposal methods : Diluted product can be flushed to sanitary sewer. Discard empty container in trash.	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 and association provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

DOT

DOT Classification : Not regulated.

IMO/MDG

IMO/MDG 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

SARA 313	Product name	CAS number	Concentration
Form R - Reporting requirements	: No listed substance		

Form R - Reporting requirements : No listed substance

California Prop. 65 : No products were found.

Section 16. Other information

Product AS SOLD

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

Health	2
Flammability	0
Physical hazards	0

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



Date of issue : 13 Mar 2013
Prepared by : Regulatory Affairs
 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.**

Oasis 560

Section 1. Chemical product and company identification

Product name : Oasis 560
 Recommended use and restrictions : Degreaser

Use only for the purpose on the product label.



Product dilution information : Up to 25 oz/gal or 195 mL/L in water

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

Code : 917260-05
 Date of issue : 12 Feb 2013

EMERGENCY HEALTH INFORMATION: 1-800-328-0026
 Outside United States and Canada CALL 1-651-222-8352 (in USA)

Section 2. Hazards identification

	Product AS SOLD	Product AT USE DILUTION
GHS Classification	: SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 AQUATIC TOXICITY (ACUTE) - Category 2 AQUATIC TOXICITY (CHRONIC) - Category 3	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B SKIN SENSITIZATION - Category 1 AQUATIC TOXICITY (ACUTE) - Category 3
GHS label elements		
Signal word	: Warning	Warning
Symbol	: 	
Hazard statements	: Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.	Causes eye irritation. May cause an allergic skin reaction. Harmful to aquatic life.
Precautionary statements		
Prevention	: Wear protective gloves. Wear eye or face protection. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.	Wear protective gloves. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	:	

Labels for a hazardous chemical must contain:

- Name, Address and Telephone Number
- Product Identifier
- Signal Word
- Hazard Statement(s)
- Precautionary Statement(s)
- Pictogram(s)

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 Outside United States and Canada CALL 1-851-222-8352 (in USA)

Section 2. Hazards identification

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QUESTIONS ?

History of Global Harmonization Project

- In 1992, a goal was set to establish a world wide system for hazard communication – referred to as the Global Harmonizing System
- GHS to Include
 - hazard classification
 - compatible labeling system, including safety data sheets and
 - easily understandable symbols

Global Harmonization Project

- Rationale for U.S. adoption of GHS:
 - American companies are major importers of chemicals as well as exporters, and missing or incomplete information on chemicals we import may lead to reduced protections for workers and public.
 - Large number of varying requirements around the world create potential barriers to trade in chemicals, particularly for small businesses.
 - A harmonized and consistent approach has benefits both in terms of protection and trade.

OSHA Rulemaking – Old Rule

- HazCom has been in effect for over 25 years; foundation for building a chemical health and safety program in workplace
- Addresses needs of employers/employees to obtain information about chemicals, and worker “right-to-know” about hazards
- Requires chemical manufacturers and importers to evaluate hazards and provide info to customers through labels, data sheets and worker training programs
- Also addresses trade secret protection
- Requires all chemicals to be evaluated and incorporates wide range of hazardous effects to be addressed.
- OSHA claims HazCom has resulted in 40% decrease in injuries/illnesses due to chemical exposures