KAY® PROGRAM – HOW TO READ A GHS SDS



OVERVIEW

Safety First

- Our regulatory processes are based on rigorous, globallyaccepted scientific metrics to assess human health and environmental impacts
- Ecolab never compromises on safety and our programs are designed to meet or exceed regulations globally
- We integrate product safety considerations into product design, transport, use and disposal in order to support the development and marketing of innovative products that are safe for people and the environment when used as intended

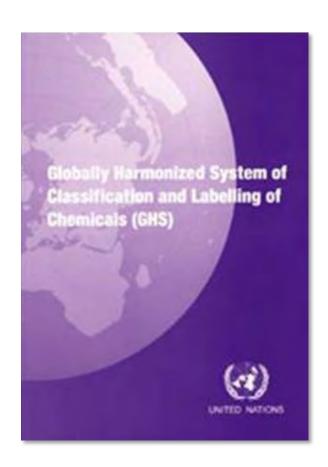


Every day, we help make the world cleaner, safer and healthier.



UNDERSTANDING GHS AND CLP

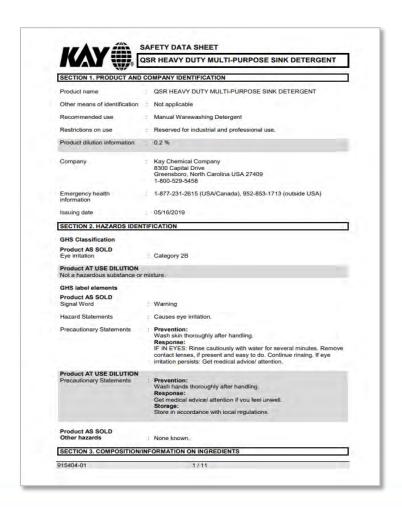
- GHS (Globally Harmonized System of Classification and Labeling of Chemicals) was developed under a 1992 international mandate of the United Nations and is designed to "harmonize," or make consistent, the way chemical hazards are communicated around the world
- OSHA is the enforcing body for the United States
- The CLP Regulation (for "Classification, Labelling and Packaging") is an EU regulation dating to 2008, which aligns the European Union system of classification, labelling and packaging of chemical substances and mixtures to GHS
- GHS and CLP regulations apply to Ecolab as a manufacturer and our customers as users of products containing chemicals





SAFETY DATA SHEETS (SDS)

- The term "Material Safety Data Sheet (MSDS)" is no longer used
- GHS requires a 16-section standardized format
- All products follow this format (previously, manufacturers could choose the format)
- Ecolab SDSs are available at: www.ecolab.com/sds
 - US available in English / Spanish / French





SDS REQUIREMENTS

- 1. Identification
- 2. Hazards Identification
- 3. Composition Information
- 4. First-Aid Measures
- 5. Fire-Fighting Measures
- 6. Accidental Release Measures
- 7. Handling and Storage
- 8. Exposure Controls / Personal Protection

- Physical and Chemical Properties
- 10. Stability and Reactivity
- 11. Toxicological Information
- 12. Ecological Information
- 13. Disposal Considerations
- 14. Transport Information
- 15. Regulatory Information
- 16. Other Information





SECTION 1: IDENTIFICATION

- Links SDS to product label
- Provides general product use and manufacturer information
- Identifies sources for more information
- Required to have Product Name, Company, and Emergency Info

SECTION 1, PRODUCT AND COMPANY IDENTIFICATION

Product name : RETAIL MULTI SURFACE & GLASS CLEANER WITH PEROXIDE

Other means of identification : Not applicable

Recommended use : Glass Cleaner

Product dilution information : 3.0 %

Company : Kay Chemical Company

8300 Capital Drive

Greensboro, North Carolina USA 27409

1-800-529-5458

Emergency health

information

1-877-231-2615 (USA/Canada), 952-853-1713 (outside USA)

Issuing date : 06/14/2016



SECTION 2: HAZARDS IDENTIFICATION

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Product AS SOLD

Eye irritation : Category 2A

Product AT USE DILUTION

Not a hazardous substance or mixture.

GHS label elements

Product AS SOLD Hazard pictograms





Warning

: Causes serious eve irritation.

Signal Word

Hazard Statements

Precautionary Statements

Prevention:

Wash skin thoroughly after handling. Wear eye protection/ face

protection. Response:

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 advice/ attention.

Product AT USE DILUTION

Precautionary Statements

Prevention:

Wash hands thoroughly after handling

Get medical advice/ attention if you feel unwell.

Store in accordance with local regulations.

Section 2 describes the product hazard and includes many of the same elements as the label - Signal Words, Pictograms, Hazard Statements, and **Precautionary Statements.**

Section: 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Category 1A Serious eye damage, Category 1 H314 H318

The classification of this product is based only on its extreme pH value (in accordance with current European legislation).

Classification (67/548/EEC, 1999/45/EC)

C: CORROSIVE

The classification of this product is based only on its extreme pH value (in accordance with current European legislation).

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms





Signal Word

Hazard Statements

Causes severe skin burns and eye damage.

nary Statements

Prevention:

: H314

Wear protective gloves/ eye protection/ face

protection

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water

for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

SDS for Ecolab-branded products will continue to describe hazards both "As Sold" and "At Use Dilution". This is an added, non-GHS required feature.



SECTION 3: COMPOSITION

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product AS SOLD

alveosides

Pure substance/mixture : Mixture



Chemical name	CAS-No.	Concentration (%)
d-glucopyranose, oligomeric, decyl octyl glycosides	68515-73-1	1-5
Hydrogen peroxide	7722-84-1	1-5
d-glucopyranose, oligomeric, c10-16-alkyl	110615-47-9	1-5

Product AT USE DILUTION

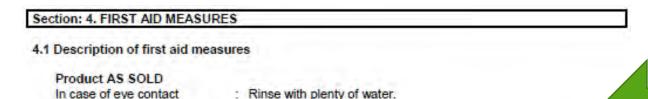
No hazardous ingredients

Identifies hazardous chemicals as defined by country requirements, including CAS numbers and percentages



SECTION 4: FIRST-AID MEASURES

Section 4 includes important instructions should you be exposed to the product.



In case of skin contact : Rinse with plenty of water.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

Product AT USE DILUTION

In case of eye contact : Rinse with plenty of water.

In case of skin contact : Rinse with plenty of water.

If swallowed : Rinse mouth, Get medical attention if symptoms occur,

If inhaled : Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of immediate medical attention and special treatment needed

Treatment : No specific measures identified.

Use

Concentrate



SECTION 5: FIRE FIGHTING

Provides basic fire-fighting guidance

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use exting

: Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Unsuitable extinguishing

media

: None known.

Specific hazards during fire

fighting

: Not flammable or combustible.

Hazardous combustion

products

Decomposition products may include the following materials:

Carbon oxides

Nitrogen oxides (NOx)

Sulfur oxides

Oxides of phosphorus

Special protective equipment

for fire-fighters

: Use personal protective equipment.

Specific extinguishing

methods

: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire

and/or explosion do not breathe fumes.



SECTION 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

: Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up Stop leak if safe to do so. Contain spillage, and then collect with noncombustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

SECTION 6: ACCIDENTAL RELEASE

Product AT USE DILUTION

Personal precautions, protective equipment and emergency procedures

Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

: Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up

Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Describes adverse effects of an accidental spill, leak, or release of product, and actions to be taken to minimize exposure



SECTION 7: STORAGE AND HOLDING

SECTION 7. HANDLING AND STORAGE

Product AS SOLD

Advice on safe handling

Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Conditions for safe storage

Keep in a cool, well-ventilated place. Keep away from reducing agents. Keep away from strong bases. Keep away from combustible material. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Storage temperature : 15 °C to 40 °C

Product AT USE DILUTION

Advice on safe handling

: Do not get in eyes, on skin, or on clothing. Wash hands thoroughly

after handling.

Conditions for safe storage

: Keep out of reach of children. Store in suitable labeled containers.

Describes appropriate practices for safe handling and storage of product



SECTION 8: EXPOSURE CONTROLS PPE

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Product AS SOLD Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures Effective exhaust ventilation system. Maintain air concentrations

below occupational exposure standards.

Individual protection measures

Hygiene measures Handle in accordance with good industrial hygiene and safety

practice. Remove and wash contaminated clothing before re-use Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing

of the eyes and body in case of contact or splash hazard

Eve / face protection:

Safety glasses or goggles (EN 166). The use of a full-face shield or other full-face protection is

strongly recommended when handling open containers or if splashes may occur.

Chemical-resistant protective gloves (EN 374) Hand protection:

Consult PPE manufacturer for the appropriate glove thickness (depending on the type of gloves and its intended use).

Body protection:

Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may

143, 14387)

technical means of collective protection or by measures, methods or procedures of work organization, consider the use of certified respiratory protection equipment meeting EU requirements (89/656/EEC, 89/686/EEC), or equivalent, with filter type:P

Product AT USE DILUTION

Appropriate engineering controls

Engineering measures Good general ventilation should be sufficient to control worker

exposure to airborne contaminants.

Individual protection measures

Hygiene measures

Wash hands before breaks and immediately after handling the product.

Eye/face protection (EN 166)

No special protective equipment required

Hand protection (EN 374)

No special protective equipment required

Skin and body protection (EN

No special protective equipment required

Respiratory protection (EN

143, 14387)

None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Use certified respiratory protection equipment meeting EU

requirements(89/656/EEC, 89/686/EEC), or equivalent, when respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods

or procedures of work organization.

Environmental exposure controls

General advice Consider the provision of containment around storage vessels



SECTION 9: CHEMICAL AND PHYSICAL PROPERTIES

 Lists physical data, including color, odor, and pH, that can be used to characterize the product and design safe work practices

Product AS SOLD liquid Appearance Color : clear, yellow : Perfumes, fragrances Odor : 0.5 - 1.5. 100 % Flash point : Not applicable, Does not sustain combustion. Odor Threshold No data available Melting point/freezing point No data available Initial boiling point and : > 100 °C boiling range Evaporation rate No data available Flammability (solid, gas) No data available Upper explosion limit No data available Lower explosion limit : No data available Vapor pressure No data available Relative vapor density : No data available Relative density 1.033 - 1.041 Water solubility : soluble

Product AT USE DILUTION

Perfumes, fragrances

liquid.

yellow

2.0 - 2.5

SECTION 10: STABILITY

SECTION 10. STABILITY AND REACTIVITY

Product AS SOLD

Chemical stability : Stable under normal conditions.

Possibility of hazardous

reactions

: Do not mix with bleach or other chlorinated products - will cause

chlorine gas.

Conditions to avoid : None known.

Incompatible materials : Bases

Metals

Hazardous decomposition

products

Decomposition products may include the following materials:

Carbon oxides

Nitrogen oxides (NOx)

- Provides a determination of the intrinsic stability of the product
- Describes conditions or materials that can affect the hazards of the product



SECTION 11: TOXICOLOGY

 Describes health hazards, if any, identified for the product or product ingredients

SECTION 11. TOXICOLOGICAL INFORMATION

Experience with human exposure

Product AS SOLD

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Pain, Irritation, Corrosion, Allergic reactions

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough

Product AT USE DILUTION

Eye contact : Redness, Irritation

Skin contact : Redness, Irritation, Allergic reactions

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

Toxicity

Product AS SOLD

Acute oral toxicity : LD50 1,500 mg/kg

Acute inhalation toxicity : 4 h Acute toxicity estimate :> 10 mg/l

Acute dermal toxicity : LD50 : 1,500 mg/kg

Respiratory or skin : May cause sensitization by skin contact. sensitization

Carcinogenicity

Reproductive effects : No data available
Germ cell mutagenicity : No data available
Teratogenicity : No data available
STOT-single exposure : No data available
STOT-repeated exposure : No data available

Aspiration toxicity : No data available



SECTION 12: ECOLOGICAL INFO

 Provides ecotoxicity and environmental fate information, if available, on the product or product ingredients

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental Effects : Toxic to aquatic life.

Product

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to algae

: no data available

Ingredients

Toxicity to fish : octadecanoic acid, sodium salt

96 h LC50 Fish: 7.44 mg/l

Ingredients

Toxicity to daphnia and other aquatic invertebrates : Sodium Carbonate

48 h EC50 Daphnia : 200 mg/l

sodium hydroxide 48 h EC50: 40 mg/l



SECTION 13: DISPOSAL

 Provides information useful in determining appropriate disposal measures for the product

These are the only disposal instructions we are able to give

SECTION 13. DISPOSAL CONSIDERATIONS

Product AS SOLD

Disposal methods

: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations

: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not reuse empty containers. Dispose of in accordance with local, state, and federal regulations.

RCRA - Resource Conservation and Recovery Authorization Act Hazardous waste : D002 (Corrosive)

Product AT USE DILUTION

Disposal methods

: Diluted product can be flushed to sanitary sewer.

Disposal considerations

: Dispose of in accordance with local, state, and federal regulations.



SECTION 14: TRANSPORT

- Provides basic shipping classification information applicable for the country, as a reference
- It is NOT a transport document

SECTION 14. TRANSPORT INFORMATION

Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

Not dangerous goods

Sea transport (IMDG/IMO)

UN number : 3077

Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(Sodium dichloro-s-triazinetrione dihydrate)

Class : 9
Packing group : III
Marine pollutant : yes

Product AT USE DILUTION

Not intended for transport.



SECTION 15: COUNTRY REGULATORY INFO

Provides information specific to country regulations on the product

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sodium hydroxide	1310-73-2	1000	

^{*:} Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : SARA 302: No chemicals in this material are subject to the reporting

requirements of SARA Title III, Section 302.

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.

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.



SECTION 16: OTHER INFO

 Provides other information, including HMIS and NFPA ratings and a general disclaimer

