MATERIAL SAFETY DATA SHEET

ESSENCE MANUAL DETERGENT

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	潔勁 超濃縮手洗碗碟清潔劑 ESSENCE MANUAL DETERGENT
Other means of identification	:	Not applicable.
Recommended use	:	Manual Warewashing Detergent
Restrictions on use	:	Reserved for industrial and professional use.
Product dilution information	:	0.05 % - 0.2 %
Company	:	Ecolab Limited 15/F, Lu Plaza, 2 Wing Yip Street Kwun Tong, Kowloon Hong Kong +852-2372 7768
Emergency telephone number	:	800-968-793 (Hong Kong) 1-651-222-5352 (United States)
Issuing date	:	2021.09.23

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Product AS SOLD

Acute toxicity (Oral)	:	Category 5
Skin corrosion/irritation	:	Category 3
Serious eye damage/eye irritation	:	Category 2A
Acute aquatic toxicity	:	Category 2

Product AT USE DILUTION
Not a hazardous substance or mixture.

GHS Label element

Product AS SOLD

Hazard pictograms :



Signal Word	:	Warning
Hazard Statements	:	May be harmful if swallowed. Causes mild skin irritation. Causes serious eye irritation. Toxic to aquatic life.
Precautionary Statements	:	**Prevention:** Wash skin thoroughly after handling. Avoid release to the environment. 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. Call a POISON CENTER or doctor/ physician if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/ attention.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Product AT USE DILUTION

Precautionary Statements : **Prevention:**
Wash hands thoroughly after handling.
Response:
Get medical advice/ attention if you feel unwell.
Storage:
Store in accordance with local regulations.

Product AS SOLD

Other hazards : None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product AS SOLD

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
Organic sulfonic acid salt	25155-30-0	10 - 30
Sodium poly(oxyethylene) dodecyl ether sulfate	68585-34-2	5 - 10
dodecylbenzenesulphonic acid, compound with 2,2',2''-nitrilotriethanol (1:1)	27323-41-7	5 - 10
Sodium Xylenesulfonate	1300-72-7	1 - 5
2-methylpentane-2,4-diol	107-41-5	1 - 5
triethanolamine	102-71-6	1 - 5
Cocamidopropyl Betaine	61789-40-0	1 - 5
sulphuric acid	7664-93-9	0.1 - 1

Product AT USE DILUTION

No hazardous ingredients

Section: 4. FIRST AID MEASURES

Product AS SOLD

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

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.

Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and : See Section 11 for more detailed information on health effects and symptoms.

delayed

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.

Section: 5. FIREFIGHTING MEASURES

Product AS SOLD

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	None known.
Specific hazards during firefighting	:	Not flammable or combustible.
Hazardous combustion products	:	Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides metal oxides
Special protective equipment for firefighters	:	Use personal protective equipment.
Specific extinguishing methods	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. 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 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.

Product AT USE DILUTION

Personal precautions, protective equipment and emergency procedures	:	Refer to protective measures listed in sections 7 and 8.

Environmental precautions	:	No special environmental precautions required.
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.

Section: 7. HANDLING AND STORAGE

Product AS SOLD

Advice on safe handling	:	Do not ingest. Avoid contact with skin and eyes. Wash hands thoroughly after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).
Conditions for safe storage	:	Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
Storage temperature	:	0 °C to 40 °C

Product AT USE DILUTION

Advice on safe handling	:	Wash hands after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE). For personal protection see section 8.
Conditions for safe storage	:	Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product AS SOLD
Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
sulphuric acid	7664-93-9	OEL-TWA	1 mg/m3	HK OEL
		OEL-STEL	3 mg/m3	HK OEL

Engineering measures	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Eye protection	:	Safety glasses with side-shields
Hand protection	:	No special protective equipment required.
Skin protection	:	No special protective equipment required.
Respiratory protection	:	No personal respiratory protective equipment normally required.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling.

Product AT USE DILUTION

Engineering measures	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Personal protective equipment		
Eye protection	:	No special protective equipment required.
Hand protection	:	No special protective equipment required.
Skin protection	:	No special protective equipment required.
Respiratory protection	:	No personal respiratory protective equipment normally required.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

		Product AS SOLD	Product AT USE DILUTION
Appearance	:	liquid	liquid
Colour	:	clear, light blue	light blue
Odour	:	odourless	odourless
pH	:	6.5 - 8.0, (100 %)	5.93 - 7.54
Flash point	:	Not applicable., Does not sustain combustion.	
Odour Threshold	:	no data available	
Melting point/freezing point	:	no data available	
Initial boiling point and boiling range	:	> 100 °C	
Evaporation rate	:	no data available	
Flammability (solid, gas)	:	Not applicable.	
Upper explosion limit	:	no data available	
Lower explosion limit	:	no data available	
Vapour pressure	:	no data available	
Relative vapour density	:	no data available	
Relative density	:	1.02 - 1.12	
Water solubility	:	soluble	
Solubility in other solvents	:	no data available	
Partition coefficient: n-octanol/water	:	no data available	
Auto-ignition temperature	:	no data available	
Thermal decomposition	:	no data available	
Viscosity, kinematic	:	no data available	
Explosive properties	:	no data available	
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.	
Molecular weight	:	no data available	
VOC	:	no data available	

Section: 10. STABILITY AND REACTIVITY

Product AS SOLD

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	None known.
Incompatible materials	:	None known.
Hazardous decomposition products	:	In case of fire hazardous decomposition products may be produced such as: Carbon oxides nitrogen oxides (NOx) Sulphur oxides metal oxides

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	Inhalation, Eye contact, Skin contact

Potential Health Effects

Product AS SOLD

Eyes	:	Causes serious eye irritation.
Skin	:	Causes mild skin irritation.
Ingestion	:	May be harmful if swallowed.
Inhalation	:	Health injuries are not known or expected under normal use.
Chronic Exposure	:	Health injuries are not known or expected under normal use.

Product AT USE DILUTION

Eyes	:	Health injuries are not known or expected under normal use.
Skin	:	Health injuries are not known or expected under normal use.
Ingestion	:	Health injuries are not known or expected under normal use.
Inhalation	:	Health injuries are not known or expected under normal use.
Chronic Exposure	:	Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD

Eye contact	:	Redness, Pain, Irritation
Skin contact	:	slight irritation
Ingestion	:	No symptoms known or expected.
Inhalation	:	No symptoms known or expected.

Product AT USE DILUTION

Eye contact	:	No symptoms known or expected.
Skin contact	:	No symptoms known or expected.
Ingestion	:	No symptoms known or expected.
Inhalation	:	No symptoms known or expected.

Toxicity

Product AS SOLD
Product

Acute oral toxicity	:	Acute toxicity estimate : 4,721 mg/kg
Acute inhalation toxicity	:	no data available
Acute dermal toxicity	:	no data available
Skin corrosion/irritation	:	no data available
Serious eye damage/eye irritation	:	no data available
Respiratory or skin sensitization	:	no data available
Carcinogenicity	:	Not classifiable as a human carcinogen.
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

Components

Acute inhalation toxicity	:	2-methylpentane-2,4-diol 4 h LC50 rat: > 1.1 mg/lTest atmosphere: dust/mist

Components

Acute dermal toxicity	:	Sodium poly(oxyethylene) dodecyl ether sulfate LD50 rat: > 2,000 mg/kg 2-methylpentane-2,4-diol LD50 rat: > 2,000 mg/kg

Section: 12. ECOLOGICAL INFORMATION

Toxicity

Product AS SOLD

Environmental Effects	:	Toxic to aquatic life.

Product AT USE DILUTION

Environmental Effects	:	This product has no known ecotoxicological effects.

Product AS SOLD
Product

Toxicity to fish	:	no data available
Toxicity to daphnia and other aquatic invertebrates	:	no data available
Toxicity to algae	:	no data available

Components

Toxicity to fish : Organic sulfonic acid salt
96 h LC50 Fish: 3.2 mg/l

Sodium poly(oxyethylene) dodecyl ether sulfate
96 h LC50 Fish: 28 mg/l

dodecylbenzenesulphonic acid, compound with 2,2',2''-nitrilotriethanol (1:1)
96 h LC50: 2.5 mg/l

triethanolamine
96 h LC50: 11,800 mg/l

Cocamidopropyl Betaine
96 h LC50 Fish: 2 mg/l

sulphuric acid
96 h LC50: 22 mg/l

Components

Toxicity to daphnia and other aquatic invertebrates : 2-methylpentane-2,4-diol
48 h EC50 Daphnia: 2,800 mg/l

triethanolamine
48 h EC50: 609.88 mg/l

Components

Toxicity to algae : Sodium Xylenesulfonate
96 h EC50: 230 mg/l

triethanolamine
72 h EC50: > 100 mg/l

Persistence and degradability

Biodegradable

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Product AS SOLD

Disposal methods : The product should not be allowed to enter drains, water courses or the soil. 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 re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

Product AT USE DILUTION

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 in accordance with local, state, and federal regulations.

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 (CN_DG)
Not dangerous goods

Sea transport (IMDG/IMO)

Not dangerous goods

Section: 15. REGULATORY INFORMATION

National Regulations
Authored with regard to the Factories & Industrial Undertakings (Dangerous Substances) Regulations.
The components of this product are reported in the following inventories:

United States TSCA Inventory :
All substances listed as active on the TSCA inventory

Canadian Domestic Substances List (DSL) :
All components of this product are on the Canadian DSL.

Australia. Australian Industrial Chemicals Introduction Scheme (AICIS) :
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand :
not determined

Japan. ENCS - Existing and New Chemical Substances Inventory :
On the inventory, or in compliance with the inventory

Korea. Korean Existing Chemicals Inventory (KECI) :
not determined

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :
On the inventory, or in compliance with the inventory

China Inventory of Existing Chemical Substances :

On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory :
On the inventory, or in compliance with the inventory

Section: 16. OTHER INFORMATION

Issuing date	:	2021.09.23
Date of first issue	:	2019.08.30
version	:	1.3
Prepared by	:	Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.