VIRTUE+

Safety Data Sheet
according to WHS Regulations

Printing date 12.04.2019 Revision: 12.04.2019

1 Identification

Product Name: ECOSOL TABS

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use:
Concentrated cleaner for automatic dishwashing.

Details of Manufacturer or Importer:
Virtue Plus
13 Fawkner Avenue,
Kings Meadows, Tas, 7249

Phone Number: 03 6344 8400

Emergency telephone number: 1800 205 506, +64 7958 2372

2 Hazard(s) Identification

Hazardous Nature:
Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).

flame over circle

Oxidising Solids 2	H272	May intensify fire; oxidiser.

health hazard

Respiratory Sensitisation 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

corrosion

Serious Eye Damage/Irritation 1	H318	Causes serious eye damage.

STOT SE 3	H335	May cause respiratory irritation.

Signal Word Danger

Hazard Statements
H272 May intensify fire; oxidiser.
H318 Causes serious eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.

Precautionary Statements

P210	Keep away from heat. - No smoking.
P220	Keep/Store away from clothing/combustible materials.
P221	Take any precaution to avoid mixing with combustibles.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

(Contd. on page 2)

Safety Data Sheet
according to WHS Regulations

Printing date 12.04.2019 Revision: 12.04.2019

Product Name: ECOSOL TABS

(Contd. of page 1)

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P370+P378	In case of fire: Use to extinguish: CO2, powder or water spray.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national regulations.

3 Composition and Information on Ingredients

Chemical Characterization: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:		
CAS: 497-19-8	Sodium carbonate Serious Eye Damage/Irritation 1, H318; STOT SE 3, H335	25 - <50%
CAS: 15630-89-4	Disodium carbonate, compound with hydrogenperoxide (2:3) Oxidising Liquids 2, H272; Oxidising Solids 2, H272; Serious Eye Damage/Irritation 1, H318; Acute Toxicity (Oral) 4, H302	10- <21%
CAS: 9014-01-1	Subtilisin Respiratory Sensitisation 1, H334; Serious Eye Damage/Irritation 1, H318; Skin Corrosion/Irritation 2, H315; STOT SE 3, H335	0.2 - <5%
CAS: 9000-90-2	Amylase, alpha- Respiratory Sensitisation 1, H334	0.1-<1%

4 First Aid Measures

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. Seek medical attention if breathing problems develop.

Skin Contact:
In case of skin contact, immediately remove contaminated clothing and wash affected areas with warm water and soap. Seek medical attention if symptoms occur.

Eye Contact:
In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

Ingestion:
If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:
Inhalation: May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Contact: No adverse health effects expected.
Eye Contact: Causes serious eye damage.
Ingestion: No adverse health effects expected.

(Contd. on page 3)

Safety Data Sheet
according to WHS Regulations

Printing date 12.04.2019 Revision: 12.04.2019

Product Name: ECOSOL TABS

(Contd. of page 2)

5 Fire Fighting Measures

Suitable Extinguishing Media:
Use fire extinguishing methods suitable to surrounding conditions. Do not use full water jet.

Specific Hazards Arising from the Chemical:
No hazardous decomposition products known.
May intensify fire; oxidiser.
Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

Special Protective Equipment and Precautions for Fire Fighters:
When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:
Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

Environmental Precautions:
In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:
Stop leak if safe to do so and sweep into a pile and shovel into drums for subsequent disposal. Avoid generating dust. Provide adequate ventilation. Rinse spill area with plenty of water.

7 Handling and Storage

Precautions for Safe Handling:
May intensify fire; oxidiser
Use of safe work practices are recommended to avoid eye or skin contact and inhalation of dust.
Food, beverages and tobacco products should not be stored or consumed where this material is in use.
Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Contaminated work clothing must not be allowed out of the workplace. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:
Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from extreme temperatures. Do not store above 30℃. Keep away from reducing agents and combustible materials.
Recommended storage temperature: 5 - 25 ℃.
Storage life: 3 years

8 Exposure Controls and Personal Protection

Exposure Standards:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Engineering Controls: Natural ventilation should be adequate under normal use conditions.

Respiratory Protection:
Where an inhalation risk exists, wear a Class P1 (particulate) respirator. At high dust levels, wear a powered air purifying respirator (PAPR) with Class P3 (Particulate) filter or an air-line respirator or a full-face Class P3 (particulate) respirator. See Australian/New Zealand Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:
Protective gloves are recommended. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation

(Contd. on page 4)

Safety Data Sheet
according to WHS Regulations

Printing date 12.04.2019 Revision: 12.04.2019

Product Name: ECOSOL TABS

(Contd. of page 3)

rate and permeation breakthrough time should be considered.
Barrier cream is recommended to prevent skin contact.
Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:
Eye and face protectors for protection against dust. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 Physical and Chemical Properties

Appearance:	
Form:	Solid
Colour:	No information available
Odour:	Characteristic
Odour Threshold:	Not determined.
pH-Value:	~10.8
Melting point/freezing point:	Not determined
Initial Boiling Point/Boiling Range:	Not applicable
Flash Point:	Not applicable
Flammability:	May intensify fire; oxidiser
Auto-ignition Temperature:	Not determined
Decomposition Temperature:	Not determined
Explosion Limits:	
Lower:	Not determined
Upper:	Not determined
Vapour Pressure:	Not applicable
Density:	Not determined
Vapour Density:	No information available
Evaporation Rate:	Not determined
Solubility in Water:	Completely miscible
Partition Coefficient (n-octanol/water):	No information available
Viscosity:	Not applicable
VOC:	0 %

10 Stability and Reactivity

Possibility of Hazardous Reactions: May intensify fire; oxidiser

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: Extreme temperatures.

Incompatible Materials: Reducing agents and combustible materials.

Hazardous Decomposition Products: No hazardous decomposition products known.

11 Toxicological Information

Toxicity:

LD_{50}/LC_{50} Values Relevant for Classification:		
CAS: 497-19-8 Sodium carbonate		
Oral	LD_{50}	4,090 mg/kg (rat)

(Contd. on page 5)

Safety Data Sheet
according to WHS Regulations

Printing date 12.04.2019 Revision: 12.04.2019

Product Name: ECOSOL TABS

(Contd. of page 4)

CAS: 9014-01-1 Subtilisin		
Oral	LD_{50}	3,700 mg/kg (rat)

Acute Health Effects
Inhalation:
May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin: No adverse health effects expected.
Eye: Causes serious eye damage.
Ingestion: No adverse health effects expected.

Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.

Serious Eye Damage / Irritation: Causes serious eye damage.

Respiratory or Skin Sensitisation:
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity: This product does NOT contain any IARC listed chemicals.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure: May cause respiratory irritation.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:
Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects: No information available

Existing Conditions Aggravated by Exposure: No information available

Additional toxicological information: No information available

12 Ecological Information

Ecotoxicity:

Aquatic toxicity:	
CAS: 497-19-8 Sodium carbonate	
EC_{50}/48 h	265 mg/l (daphnia)
LC_{50}/96 h	300 mg/l (lepomis macrochirus)
EC_{50}/120hr	242 mg/l (algae)

Persistence and Degradability: Product is biodegradable.

Bioaccumulative Potential: No further relevant information available.

Mobility in Soil: No further relevant information available.
Other adverse effects: No further relevant information available.

13 Disposal Considerations

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:
Please consult your state Land Waste Management Authority for more information.

(Contd. on page 6)

Safety Data Sheet
according to WHS Regulations

Printing date 12.04.2019 Revision: 12.04.2019

Product Name: ECOSOL TABS

(Contd. of page 5)

14 Transport Information

UN Number **ADG, IMDG, IATA**	UN1479
Proper Shipping Name **ADG, IMDG, IATA**	OXIDIZING SOLID, N.O.S. (Disodium carbonate, compound with hydrogenperoxide (2:3)
Dangerous Goods Class **ADG Class:**	5.1 Oxidising substances.
Packing Group: **ADG, IMDG, IATA**	III
EMS Number:	F-A,S-Q
Hazchem Code:	1Y
Special Provisions:	223, 274
Limited Quantities:	5 kg
Packagings & IBCs - Packing Instruction:	P002, IBC08, LP02
Packagings & IBCs - Special Packing Provisions:	B3
Portable Tanks & Bulk Containers - Instructions:	T1
Portable Tanks & Bulk Containers - Special Provisions:	TP33

15 Regulatory Information

Australian Inventory of Chemical Substances:	
CAS: 497-19-8	Sodium carbonate
CAS: 15630-89-4	Disodium carbonate, compound with hydrogenperoxide (2:3)
CAS: 9014-01-1	Subtilisin
CAS: 9000-90-2	Amylase, alpha-

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
Poisons Schedule: 6

16 Other Information

Date of Preparation or Last Revision: 12.04.2019

Prepared by: MSDS.COM.AU Pty Ltd www.msds.com.au

Abbreviations and acronyms:
ADG: Australian Dangerous Goods
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds
LC_{50}: Lethal concentration, 50 percent
LD_{50}: Lethal dose, 50 percent
IARC: International Agency for Research on Cancer
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)
Oxidising Liquids 2: Oxidising liquids, Hazard Category 2

(Contd. on page 7)

Safety Data Sheet
according to WHS Regulations

Printing date 12.04.2019 Revision: 12.04.2019

Product Name: ECOSOL TABS

(Contd. of page 6)

Oxidising Solids 2: Oxidising solids, Hazard Category 2
Acute Toxicity (Oral) 4: Acute toxicity – Category 4
Skin Corrosion/Irritation 2: Skin corrosion/irritation – Category 2
Serious Eye Damage/Irritation 1: Serious eye damage/eye irritation – Category 1
Respiratory Sensitisation 1: Respiratory sensitisation, Hazard Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document “Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - February 2016”

The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. Virtue Plus makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.