

## Daigo's IMK Medium for Marine Microalgae

Novachem Pty Ltd

Chemwatch Hazard Alert Code: 2

Version No: 2.2

Issue Date: 15/06/2020

Safety Data Sheet according to WHS and ADG requirements

Print Date: 15/06/2020

S.GHS.AUS.EN

### SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

#### Product Identifier

Product name	Daigo's IMK Medium for Marine Microalgae
Synonyms	398-01333, 392-01331
Other means of identification	Not Available

#### Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	For Marine Microalgae Culture
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#### Details of the supplier of the safety data sheet

Registered company name	Novachem Pty Ltd
Address	25 Crissane Road, Heidelberg West Victoria 3081 Australia
Telephone	+61384151255
Fax	+61386250088
Website	www.novachem.com.au
Email	novachem@novachem.com.au

#### Emergency telephone number

Association / Organisation	Victorian Poisons Information Centre
Emergency telephone numbers	13 11 26
Other emergency telephone numbers	Not Available

### SECTION 2 HAZARDS IDENTIFICATION

#### Classification of the substance or mixture


**HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS.** According to the WHS Regulations and the ADG Code.

#### CHEMWATCH HAZARD RATINGS

	Min	Max	
Flammability	0		
Toxicity	1		0 = Minimum
Body Contact	2		1 = Low
Reactivity	0		2 = Moderate
Chronic	2		3 = High
			4 = Extreme

Poisons Schedule	Not Applicable
Classification [1]	Eye Irritation Category 2A, Specific target organ toxicity - repeated exposure Category 2, Acute Aquatic Hazard Category 3, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation), Skin Corrosion/Irritation Category 2, Skin Sensitizer Category 1, Chronic Aquatic Hazard Category 3
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

#### Label elements

Hazard pictogram(s)	
SIGNAL WORD	<b>WARNING</b>

#### Hazard statement(s)

H319	Causes serious eye irritation.
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H373	May cause damage to organs through prolonged or repeated exposure.
H335	May cause respiratory irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

## Precautionary statement(s) Prevention

P260	Do not breathe dust/fume.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.

## Precautionary statement(s) Response

P321	Specific treatment (see advice on this label).
P362	Take off contaminated clothing and wash before reuse.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

## Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

## Substances

See section below for composition of Mixtures

## Mixtures

CAS No	%[weight]	Name
6131-90-4	79.29	<u>sodium acetate, trihydrate</u>
7558-79-4	0.555	<u>sodium phosphate, dibasic</u>
7778-77-0	1.982	<u>potassium phosphate, monobasic</u>
12125-02-9	1.062	<u>ammonium chloride</u>
15275-07-7	2.061	<u>EDTA iron salt</u>
15375-84-5	0.131	<u>EDTA, disodium manganese salt</u>
7773-01-5	0.071	<u>manganese chloride</u>
6381-92-6	14.748	<u>EDTA disodium salt</u>
7446-20-0	0.009	<u>zinc sulfate heptahydrate</u>
7758-98-7	0.005	<u>copper sulfate</u>
10102-40-6	0.003	<u>sodium molybdate</u>
7758-99-8	0.001	<u>copper sulfate, pentahydrate</u>
10102-18-8	0.001	<u>sodium selenite</u>
67-03-8	0.079	<u>thiamine hydrochloride</u>
58-85-5	0.001	<u>biotin</u>
7647-14-5	0.001	<u>sodium chloride</u>

## SECTION 4 FIRST AID MEASURES

## Description of first aid measures

<b>Eye Contact</b>	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with fresh running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>

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<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▶ If fumes or combustion products are inhaled remove from contaminated area.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor, without delay.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▶ <b>If swallowed do NOT induce vomiting.</b></li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>▶ Seek medical advice.</li> </ul>

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5 FIREFIGHTING MEASURES****Extinguishing media**

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.

**Special hazards arising from the substrate or mixture**

<b>Fire Incompatibility</b>	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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**Advice for firefighters**

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water courses.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> </ul>
<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>▶ Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions.</li> <li>▶ Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).</li> <li>▶ Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.</li> </ul> <p>Combustion products include:  carbon monoxide (CO)  carbon dioxide (CO<sub>2</sub>)  nitrogen oxides (NO<sub>x</sub>)  metal oxides  other pyrolysis products typical of burning organic material.  May emit poisonous fumes.  May emit corrosive fumes.</p>
<b>HAZCHEM</b>	Not Applicable

**SECTION 6 ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

See section 8

**Environmental precautions**

See section 12

**Methods and material for containment and cleaning up**

<b>Minor Spills</b>	<ul style="list-style-type: none"> <li>▶ Remove all ignition sources.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> </ul>
<b>Major Spills</b>	<p>Moderate hazard.</p> <ul style="list-style-type: none"> <li>▶ <b>CAUTION:</b> Advise personnel in area.</li> <li>▶ Alert Emergency Services and tell them location and nature of hazard.</li> <li>▶ Control personal contact by wearing protective clothing.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 HANDLING AND STORAGE**

## Daigo's IMK Medium for Marine Microalgae

## Precautions for safe handling

<b>Safe handling</b>	<ul style="list-style-type: none"> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions)</li> <li>▶ Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame.</li> <li>▶ Establish good housekeeping practices.</li> <li>▶ Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds.</li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ Store in a cool, dry area protected from environmental extremes.</li> <li>▶ Store away from incompatible materials and foodstuff containers.</li> </ul>

## Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>▶ Glass container is suitable for laboratory quantities</li> <li>▶ Polyethylene or polypropylene container.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>
<b>Storage incompatibility</b>	<p>Salts of ethylenediaminetetraacetic acid (EDTA):</p> <ul style="list-style-type: none"> <li>▶ should not come into contact with strong oxidisers</li> <li>▶ are incompatible with metals such as zinc, aluminum, carbon steel, copper, copper alloys, galvanized metals and nickel.</li> <li>▶ in contact with metals, such as aluminum, may generate flammable hydrogen gas</li> <li>▶ in contact with bases, may evolve hydrogen and oxygen</li> </ul> <p>Sodium acetate:</p> <ul style="list-style-type: none"> <li>▶ catalyses the violent polymerisation of diketene with evolution of gas; 0.1% concentration of the acetate are sufficient</li> <li>▶ aqueous solutions in contact with fluorine may explode as a result of the formation of diacetyl peroxide</li> <li>▶ may be explosive in the presence of potassium nitrate</li> <li>▶ Avoid reaction with oxidising agents</li> </ul>

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

## Control parameters

## OCCUPATIONAL EXPOSURE LIMITS (OEL)

## INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	ammonium chloride	Ammonium chloride (fume)	10 mg/m <sup>3</sup>	20 mg/m <sup>3</sup>	Not Available	Not Available
Australia Exposure Standards	EDTA, disodium manganese salt	Manganese, dust & compounds (as Mn)	1 mg/m <sup>3</sup>	Not Available	Not Available	Not Available
Australia Exposure Standards	manganese chloride	Manganese, dust & compounds (as Mn)	1 mg/m <sup>3</sup>	Not Available	Not Available	Not Available
Australia Exposure Standards	sodium molybdate	Molybdenum, soluble compounds (as Mo)	5 mg/m <sup>3</sup>	Not Available	Not Available	Not Available
Australia Exposure Standards	sodium selenite	Selenium compounds (as Se) excluding hydrogen selenide	0.1 mg/m <sup>3</sup>	Not Available	Not Available	Not Available

## EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
sodium acetate, trihydrate	Sodium acetate	11 mg/m <sup>3</sup>	120 mg/m <sup>3</sup>	700 mg/m <sup>3</sup>
sodium acetate, trihydrate	Sodium acetate trihydrate; (Acetic acid, sodium salt trihydrate)	11 mg/m <sup>3</sup>	120 mg/m <sup>3</sup>	690 mg/m <sup>3</sup>
potassium phosphate, monobasic	Potassium phosphate, monobasic	9.6 mg/m <sup>3</sup>	110 mg/m <sup>3</sup>	630 mg/m <sup>3</sup>
ammonium chloride	Ammonium chloride	20 mg/m <sup>3</sup>	54 mg/m <sup>3</sup>	330 mg/m <sup>3</sup>
manganese chloride	Manganese(II) chloride (1:2); (Manganous chloride)	6.9 mg/m <sup>3</sup>	11 mg/m <sup>3</sup>	170 mg/m <sup>3</sup>
EDTA disodium salt	Ethylenediaminetetraacetic acid, disodium salt	11 mg/m <sup>3</sup>	120 mg/m <sup>3</sup>	730 mg/m <sup>3</sup>
EDTA disodium salt	Ethylenediaminetetraacetic acid, disodium salt, dihydrate	30 mg/m <sup>3</sup>	330 mg/m <sup>3</sup>	2,000 mg/m <sup>3</sup>
zinc sulfate heptahydrate	Zinc sulfate heptahydrate (1:1:7)	27 mg/m <sup>3</sup>	170 mg/m <sup>3</sup>	1,000 mg/m <sup>3</sup>
zinc sulfate heptahydrate	Zinc sulfate	15 mg/m <sup>3</sup>	97 mg/m <sup>3</sup>	580 mg/m <sup>3</sup>
copper sulfate	Copper sulfate; (Copper(II) sulfate)	7.5 mg/m <sup>3</sup>	9.9 mg/m <sup>3</sup>	59 mg/m <sup>3</sup>
sodium molybdate	Sodium molybdate dihydrate; (Disodium molybdate dihydrate)	3.8 mg/m <sup>3</sup>	34 mg/m <sup>3</sup>	210 mg/m <sup>3</sup>
sodium molybdate	Molybdic acid, disodium salt; (Disodium molybdate)	3.2 mg/m <sup>3</sup>	17 mg/m <sup>3</sup>	100 mg/m <sup>3</sup>
copper sulfate, pentahydrate	Copper sulfate; (Copper(II) sulfate)	7.5 mg/m <sup>3</sup>	9.9 mg/m <sup>3</sup>	59 mg/m <sup>3</sup>
copper sulfate, pentahydrate	Copper(II) sulfate pentahydrate	12 mg/m <sup>3</sup>	32 mg/m <sup>3</sup>	190 mg/m <sup>3</sup>
sodium selenite	Sodium selenite	1.3 mg/m <sup>3</sup>	2.3 mg/m <sup>3</sup>	3.1 mg/m <sup>3</sup>
sodium chloride	Chloride; (Chloride(1-); Chloride ions)	0.5 ppm	2 ppm	20 ppm

Ingredient	Original IDLH	Revised IDLH
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Continued...

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sodium acetate, trihydrate	Not Available	Not Available
sodium phosphate, dibasic	Not Available	Not Available
potassium phosphate, monobasic	Not Available	Not Available
ammonium chloride	Not Available	Not Available
EDTA iron salt	Not Available	Not Available
EDTA, disodium manganese salt	500 mg/m3	Not Available
manganese chloride	500 mg/m3	Not Available
EDTA disodium salt	Not Available	Not Available
zinc sulfate heptahydrate	Not Available	Not Available
copper sulfate	Not Available	Not Available
sodium molybdate	1,000 mg/m3	Not Available
copper sulfate, pentahydrate	Not Available	Not Available
sodium selenite	1 mg/m3	Not Available
thiamine hydrochloride	Not Available	Not Available
biotin	Not Available	Not Available
sodium chloride	Not Available	Not Available


## OCCUPATIONAL EXPOSURE BANDING

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
sodium acetate, trihydrate	E	≤ 0.01 mg/m <sup>3</sup>
sodium phosphate, dibasic	E	≤ 0.01 mg/m <sup>3</sup>
EDTA iron salt	E	≤ 0.01 mg/m <sup>3</sup>
EDTA disodium salt	E	≤ 0.01 mg/m <sup>3</sup>
zinc sulfate heptahydrate	E	≤ 0.01 mg/m <sup>3</sup>
copper sulfate	E	≤ 0.01 mg/m <sup>3</sup>
copper sulfate, pentahydrate	E	≤ 0.01 mg/m <sup>3</sup>
thiamine hydrochloride	E	≤ 0.01 mg/m <sup>3</sup>
sodium chloride	E	≤ 0.01 mg/m <sup>3</sup>

## Notes:

Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

## Exposure controls

<b>Appropriate engineering controls</b>	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.</p>
<b>Personal protection</b>	
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.</li> </ul>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	<p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care.</p> <p>Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.</p> <ul style="list-style-type: none"> <li>▶ polychloroprene.</li> <li>▶ nitrile rubber.</li> <li>▶ butyl rubber.</li> </ul>
<b>Body protection</b>	See Other protection below

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## Other protection

- ▶ Overalls.
- ▶ P.V.C. apron.
- ▶ Barrier cream.

## Recommended material(s)

## GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

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Material	CPI
NATURAL RUBBER	A
NATURAL+NEOPRENE	A
NITRILE	A

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

## Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	-	PAPR-P1
up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3 Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

\* - Negative pressure demand \*\* - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- ▶ Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- ▶ The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- ▶ Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
- ▶ Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- ▶ Use approved positive flow mask if significant quantities of dust becomes airborne.
- ▶ Try to avoid creating dust conditions.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

Appearance	white powder		
Physical state	Solid	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Not Available	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

## SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul>

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<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

## SECTION 11 TOXICOLOGICAL INFORMATION

## Information on toxicological effects

<b>Inhaled</b>	<p>The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.</p> <p>If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.</p>
<b>Ingestion</b>	Accidental ingestion of the material may be damaging to the health of the individual.
<b>Skin Contact</b>	<p>This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition</p> <p>Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>
<b>Eye</b>	This material can cause eye irritation and damage in some persons.
<b>Chronic</b>	<p>Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.</p> <p>This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.</p> <p>Chelates are occasionally used in therapies for various forms of poisoning. A systemic reaction known as the "excessive chelation syndrome" consists mainly of general unwellness, fatigue, thirst, followed by chills and fever.</p> <p>Injection of EDTA and its salts can cause severe kidney damage with tissue death and internal bleeding, bone marrow depression and critically low levels of calcium.</p>

Daigo's IMK Medium for Marine Microalgae	TOXICITY	IRRITATION
	Not Available	Not Available
sodium acetate, trihydrate	TOXICITY	IRRITATION
	Oral (rat) LD50: 3530 mg/kg <sup>[2]</sup>	Eye (rabbit): 10 mg mild Skin (rabbit): 550 mg/24h mild
sodium phosphate, dibasic	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit): 500 mg/24h - mild
	Oral (rat) LD50: >500 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup> Skin (rabbit): 500 mg/24h - mild
		Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
potassium phosphate, monobasic	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup> Oral (rat) LD50: >500 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup> Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
ammonium chloride	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup> Oral (rat) LD50: 1650 mg/kg <sup>[2]</sup>	Eye (rabbit): 100 mg SEVERE Eye (rabbit): 500 mg/24h SEVERE
EDTA iron salt	TOXICITY	IRRITATION
	Not Available	Not Available
EDTA, disodium manganese salt	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup> Oral (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Not Available

## Daigo's IMK Medium for Marine Microalgae

manganese chloride	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: 250 mg/kg <sup>[2]</sup>	Not Available
EDTA disodium salt	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: 2000 mg/kg <sup>[2]</sup>	Not Available
zinc sulfate heptahydrate	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup> Oral (rat) LD50: >1000-2000 mg/kg <sup>[1]</sup>	Not Available
copper sulfate	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup> Oral (rat) LD50: 300 mg/kg <sup>[2]</sup>	Not Available
sodium molybdate	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup> Inhalation (rat) LC50: >2.08 mg/l/4h <sup>[2]</sup> Oral (rat) LD50: 250 mg/kg <sup>[2]</sup>	Not Available
copper sulfate, pentahydrate	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2000 mg/kg <sup>[2]</sup> Oral (rat) LD50: 300 mg/kg <sup>[2]</sup>	Not Available
sodium selenite	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: 7 mg/kg <sup>[2]</sup>	Eye: adverse effect observed (irritating) <sup>[1]</sup> Skin: adverse effect observed (irritating) <sup>[1]</sup>
thiamine hydrochloride	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: 3710 mg/kg <sup>[2]</sup>	Eye: adverse effect observed (irritating) <sup>[1]</sup> Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
biotin	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
sodium chloride	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: 3000 mg/kg <sup>[2]</sup>	Eye (rabbit): 10 mg - moderate Eye (rabbit): 100 mg/24h - moderate Skin (rabbit): 500 mg/24h - mild
<b>Legend:</b>	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

<b>SODIUM ACETATE, TRIHYDRATE</b>	Data for anhydrous form
<b>SODIUM PHOSPHATE, DIBASIC</b>	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
<b>POTASSIUM PHOSPHATE, MONOBASIC</b>	No data of toxicological significance identified in literature search.
<b>AMMONIUM CHLORIDE</b>	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
<b>EDTA IRON SALT</b>	data for sodium salt
<b>ZINC SULFATE HEPTAHYDRATE</b>	Exposure may produce irreversible effects*. <b>NOTE:</b> Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA. Oral (human) TDL0: 45 mg/kg/7d-C Eye (rabbit): 0.42 mg moderate Oral (man) TDL0: 180 mg/kg/6w-I Equivocal tumorigenic agent by RTECS criteria. for zinc sulfate heptahydrate Sleep, ataxia, respiratory stimulation, somnolence, coma, diarrhoea, changes in endocrine pancreas recorded.
<b>COPPER SULFATE, PENTAHYDRATE</b>	for copper and its compounds (typically copper chloride): <b>Acute toxicity:</b> There are no reliable acute oral toxicity results available. In an acute dermal toxicity study (OECD TG 402), one group of 5 male rats and 5 groups of 5 female rats received doses of 1000, 1500 and 2000 mg/kg bw via dermal application for 24 hours. The LD50 values of copper monochloride were 2,000 mg/kg bw or greater for male (no deaths observed) and 1,224 mg/kg bw for female. Four females died at both 1500 and 2000 mg/kg bw, and one at 1,000 mg/kg bw.
<b>BIOTIN</b>	Extra-embryonic structures, foetotoxicity recorded.
<b>SODIUM CHLORIDE</b>	The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.



## Daigo's IMK Medium for Marine Microalgae

<b>Daigo's IMK Medium for Marine Microalgae &amp; SODIUM ACETATE, TRIHYDRATE &amp; SODIUM PHOSPHATE, DIBASIC &amp; EDTA IRON SALT &amp; EDTA, DISODIUM MANGANESE SALT &amp; EDTA DISODIUM SALT &amp; COPPER SULFATE &amp; SODIUM MOLYBDATE &amp; SODIUM SELENITE &amp; THIAMINE HYDROCHLORIDE &amp; SODIUM CHLORIDE</b>	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.
<b>Daigo's IMK Medium for Marine Microalgae &amp; EDTA IRON SALT &amp; EDTA, DISODIUM MANGANESE SALT &amp; EDTA DISODIUM SALT &amp; SODIUM SELENITE</b>	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important.
<b>Daigo's IMK Medium for Marine Microalgae &amp; EDTA IRON SALT &amp; EDTA, DISODIUM MANGANESE SALT &amp; EDTA DISODIUM SALT</b>	For ethylenediaminetetraacetic acid (EDTA) and its salts: EDTA is a strong organic acid, with a high affinity for alkaline-earth ions (for example, calcium and magnesium) and heavy-metal ions (such as lead and mercury), resulting in highly stable chelate complexes. The ability of EDTA to complex is used commercially to either promote or inhibit chemical reactions, depending on application. EDTA and its salts are expected to be absorbed by the lungs and the gastrointestinal tract; absorption through skin is unlikely. They cause mild skin irritation, and severe eye irritation. The greatest risk in the human body will occur when the EDTA attempts to scavenge the trace metals used and required by the body.
<b>SODIUM PHOSPHATE, DIBASIC &amp; SODIUM CHLORIDE</b>	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
<b>MANGANESE CHLORIDE &amp; BIOTIN</b>	No significant acute toxicological data identified in literature search.
<b>COPPER SULFATE &amp; COPPER SULFATE, PENTAHYDRATE</b>	For copper sulfate Copper sulfate is corrosive. Side effects are diverse and multi-systemic, and include severe gastrointestinal symptoms and signs, metallic taste in the mouth, burning pain in the chest, headache, sweating, shock and damage to brain, liver and kidneys. It has been reported as a cause of human suicide. On exposure, it can cause dose dependent damage to the skin and eye, also, eczema and allergic reactions.

<b>Acute Toxicity</b>	✗	<b>Carcinogenicity</b>	✗
<b>Skin Irritation/Corrosion</b>	✓	<b>Reproductivity</b>	✗
<b>Serious Eye Damage/Irritation</b>	✓	<b>STOT - Single Exposure</b>	✓
<b>Respiratory or Skin sensitisation</b>	✓	<b>STOT - Repeated Exposure</b>	✓
<b>Mutagenicity</b>	✗	<b>Aspiration Hazard</b>	✗

Legend: ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

## Toxicity

Daigo's IMK Medium for Marine Microalgae	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
sodium acetate, trihydrate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>1-mg/L	2
	EC50	72	Algae or other aquatic plants	>1-mg/L	2
	NOEC	72	Algae or other aquatic plants	1-mg/L	2
sodium phosphate, dibasic	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>100mg/L	2
	EC50	72	Algae or other aquatic plants	>100mg/L	2
	NOEC	72	Algae or other aquatic plants	>100mg/L	2
potassium phosphate, monobasic	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>100mg/L	2
	EC50	72	Algae or other aquatic plants	>100mg/L	2
	NOEC	72	Algae or other aquatic plants	>100mg/L	2

Continued...

## Daigo's IMK Medium for Marine Microalgae

ammonium chloride	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	0.08mg/L	4
	EC50	48	Crustacea	0.261mg/L	4
	EC50	72	Algae or other aquatic plants	166.5mg/L	4
	NOEC	720	Fish	0.006mg/L	4
EDTA iron salt	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
EDTA, disodium manganese salt	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	13200000000mg/L	3
	EC50	48	Crustacea	100.9mg/L	2
	EC50	96	Algae or other aquatic plants	2280000000000mg/L	3
	NOEC	96	Fish	>1-mg/L	2
manganese chloride	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	3.2mg/L	2
	EC50	48	Crustacea	4.7mg/L	4
	EC50	96	Algae or other aquatic plants	651.002mg/L	3
	BCF	480	Crustacea	10mg/L	4
	NOEC	216	Algae or other aquatic plants	<0.0001mg/L	4
EDTA disodium salt	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	1-592mg/L	2
	EC50	48	Crustacea	140mg/L	2
	EC50	96	Algae or other aquatic plants	39173.363mg/L	3
	NOEC	504	Crustacea	25mg/L	2
zinc sulfate heptahydrate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	0.001-0.65mg/L	2
	EC50	48	Crustacea	0.001-0.014mg/L	2
	NOEC	504	Crustacea	0.001-0.75mg/L	2
copper sulfate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	0.000057mg/L	4
	EC50	48	Crustacea	0.001-0.213mg/L	2
	EC50	72	Algae or other aquatic plants	0.0004mg/L	4
	BCF	1440	Fish	1800.00mg/L	4
	EC10	32	Crustacea	0.000085mg/L	4
	NOEC	384	Fish	0.00005mg/L	4
sodium molybdate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	18.452mg/L	3
	EC50	48	Crustacea	3618mg/L	4
	EC50	96	Algae or other aquatic plants	49.705mg/L	3
	BCF	168	Algae or other aquatic plants	0.025mg/L	4
	NOEC	Not Available	Algae or other aquatic plants	4.6mg/L	2
copper sulfate, pentahydrate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	0.001-mg/L	2
	EC50	72	Algae or other aquatic plants	0.0165mg/L	2
	NOEC	768	Fish	0.0048mg/L	2
sodium selenite	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	0.002-0.06mg/L	2
	EC50	48	Crustacea	0.001-0.969mg/L	2
	EC50	96	Algae or other aquatic plants	0.006-0.32mg/L	2
	BCF	2016	Fish	13.1mg/L	4
	NOEC	240	Algae or other aquatic plants	0.001-0.03mg/L	2

## Daigo's IMK Medium for Marine Microalgae

thiamine hydrochloride	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	49761.625mg/L	3
	EC50	48	Crustacea	>100mg/L	2
	EC50	72	Algae or other aquatic plants	>100mg/L	2
	NOEC	48	Crustacea	58mg/L	2
biotin	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	6212.155mg/L	3
	EC50	96	Algae or other aquatic plants	32269.502mg/L	3
sodium chloride	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	5-840mg/L	2
	EC50	48	Crustacea	402.6mg/L	4
	EC50	96	Algae or other aquatic plants	2430mg/L	4
	NOEC	6	Fish	0.001mg/L	4
<b>Legend:</b>	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

Chelating agents might reduce the elimination of heavy metals by adsorption on activated sludge. A remobilisation of heavy metals out of river sediment might be expected.

Polyanionic monomers, such as ethylenediaminetetraacetic acid (EDTA), are toxic to green algae. Toxicity to algae is moderate and it appears that the mode of toxic action of these polyanionic monomers is overchelation of nutrient elements needed by algae for growth.

For ethylenediaminetetraacetic acid (EDTA) (and its salts):

Environmental Fate: Based on its physical and chemical properties and test results, EDTA is not expected to volatilize from soil or water. When released to the atmosphere, EDTA should adhere to particulate matter, and appears to have the potential to photolyse. In water, EDTA may react with photochemically generated hydroxyl radicals (half-life of approximately 230 days or 8 months). When released to soil, EDTA is mobile and expected to complex trace metals and alkaline earth metals, thereby causing an increase in the total solubility of the metals.

**DO NOT discharge into sewer or waterways.**

## Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
sodium acetate, trihydrate	LOW	LOW
EDTA, disodium manganese salt	HIGH	HIGH
manganese chloride	HIGH	HIGH
EDTA disodium salt	LOW	LOW
zinc sulfate heptahydrate	HIGH	HIGH
copper sulfate	HIGH	HIGH
sodium molybdate	HIGH	HIGH
copper sulfate, pentahydrate	HIGH	HIGH
thiamine hydrochloride	HIGH	HIGH
biotin	HIGH	HIGH
sodium chloride	LOW	LOW

## Bioaccumulative potential

Ingredient	Bioaccumulation
sodium acetate, trihydrate	HIGH (BCF = 29100)
EDTA, disodium manganese salt	LOW (LogKOW = -9.4414)
manganese chloride	LOW (LogKOW = 0.8494)
EDTA disodium salt	LOW (LogKOW = -3.8573)
zinc sulfate heptahydrate	LOW (BCF = 112)
copper sulfate	LOW (LogKOW = -2.2002)
sodium molybdate	LOW (LogKOW = 2.229)
copper sulfate, pentahydrate	LOW (LogKOW = -2.2002)
sodium selenite	LOW (BCF = 85)
thiamine hydrochloride	LOW (LogKOW = -1.7773)
biotin	LOW (LogKOW = 0.3855)
sodium chloride	LOW (LogKOW = 0.5392)

## Mobility in soil

Ingredient	Mobility
sodium acetate, trihydrate	HIGH (KOC = 1)

## Daigo's IMK Medium for Marine Microalgae

EDTA, disodium manganese salt	LOW (KOC = 465.2)
manganese chloride	LOW (KOC = 23.74)
EDTA disodium salt	LOW (KOC = 1046)
zinc sulfate heptahydrate	LOW (KOC = 6.124)
copper sulfate	LOW (KOC = 6.124)
sodium molybdate	LOW (KOC = 48.64)
copper sulfate, pentahydrate	LOW (KOC = 6.124)
thiamine hydrochloride	LOW (KOC = 87.51)
biotin	LOW (KOC = 59.86)
sodium chloride	LOW (KOC = 14.3)

## SECTION 13 DISPOSAL CONSIDERATIONS

## Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> <li>▶ Containers may still present a chemical hazard/ danger when empty.</li> <li>▶ Return to supplier for reuse/ recycling if possible.</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> </ul>
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## SECTION 14 TRANSPORT INFORMATION

## Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

## SECTION 15 REGULATORY INFORMATION

## Safety, health and environmental regulations / legislation specific for the substance or mixture

## SODIUM ACETATE, TRIHYDRATE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

## SODIUM PHOSPHATE, DIBASIC IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 3

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

## POTASSIUM PHOSPHATE, MONOBASIC IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

## AMMONIUM CHLORIDE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

## EDTA IRON SALT IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 2

## EDTA, DISODIUM MANGANESE SALT IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

## MANGANESE CHLORIDE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

## Daigo's IMK Medium for Marine Microalgae

**EDTA DISODIUM SALT IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Inventory of Chemical Substances (AICS)

**ZINC SULFATE HEPTAHYDRATE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

**COPPER SULFATE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

**SODIUM MOLYBDATE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Inventory of Chemical Substances (AICS)

**COPPER SULFATE, PENTAHYDRATE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

**SODIUM SELENITE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

**THIAMINE HYDROCHLORIDE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Inventory of Chemical Substances (AICS)

**BIOTIN IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Inventory of Chemical Substances (AICS)

**SODIUM CHLORIDE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Inventory of Chemical Substances (AICS)

**National Inventory Status**

National Inventory	Status
Australia - AICS	No (EDTA iron salt)
Canada - DSL	No (EDTA iron salt)
Canada - NDSL	No (sodium acetate, trihydrate; sodium phosphate, dibasic; potassium phosphate, monobasic; ammonium chloride; EDTA iron salt; EDTA, disodium manganese salt; manganese chloride; EDTA disodium salt; zinc sulfate heptahydrate; copper sulfate; sodium molybdate; copper sulfate, pentahydrate; sodium selenite; thiamine hydrochloride; biotin; sodium chloride)
China - IECSC	No (EDTA iron salt; thiamine hydrochloride)
Europe - EINEC / ELINCS / NLP	No (EDTA iron salt)
Japan - ENCS	No (EDTA, disodium manganese salt; thiamine hydrochloride)
Korea - KECI	No (EDTA iron salt)
New Zealand - NZIoC	No (EDTA iron salt)
Philippines - PICCS	No (EDTA iron salt; EDTA, disodium manganese salt)
USA - TSCA	No (EDTA iron salt)
Taiwan - TCSI	Yes
Mexico - INSQ	No (EDTA iron salt; EDTA, disodium manganese salt; manganese chloride)
Vietnam - NCI	Yes
Russia - ARIPS	No (EDTA iron salt; EDTA, disodium manganese salt; biotin)
<b>Legend:</b>	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

**SECTION 16 OTHER INFORMATION**

<b>Revision Date</b>	15/06/2020
<b>Initial Date</b>	15/06/2020

**SDS Version Summary**

Version	Issue Date	Sections Updated
1.2.1.1.1	15/06/2020	Chronic Health, Classification

**Other information**

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification

Continued...

**Daigo's IMK Medium for Marine Microalgae**

committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

**Definitions and abbreviations**

PC—TWA: Permissible Concentration-Time Weighted Average

PC—STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit.

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value

LOD: Limit Of Detection

OTV: Odour Threshold Value

BCF: BioConcentration Factors

BEI: Biological Exposure Index

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