Ref No.	Boukabikoukin Cort PLUS	Date Prepared	18-May-15
4417-02	Yokohama Oils & Fats Industry	Date Revised	6-Jun-17

Safety Data Sheet (SDS)

1. PRODUCT AND COMPANY IDENTIFICATION

Product ID Boukabikoukin Cort PLUS

Product Code 4417

Company Name Yokohama Oils & Fats Industry Co., LTD.

Address 1-1 Minamisengen-cho, Nishi-ku, Yokohama,

Department in Charge Department of Technology & Development

 Personnel in Charge
 Hajime Hirasawa

 Phone
 +81-45-311-4701

 Fax
 +81-463-89-1330

 Emergency Contact
 +81-45-311-4704

Recommended Use and Usage Restrictions Prvention mold in inside the air conditioner and a

bathroom(Inside the unit bath, Joint in a wall, Caulking, The ventilator) and ,antibacterial.

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2. HAZARDS IDENTIFICATION

GHS Category

Germ cell mutagenicity Category 1 (1A and 1B)

Specific target organ toxicity (repeated exposure) Category 2

* Items unmentioned are either out of category, not classified, or classification not possible.

GHS label elements

Symbol



Signal word

Danger

Hazard statement

May cause genetic defects

May cause damage to organs through prolonged or repeated exposure (spleen, adrenal, kidneys, bone marrow, respiratory organs, liver)

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3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical substance • Single / Mixture

Mixture

Component / Chemical Name	Content (wt%)	CAS No.	MITI No.
Alkali soluble resin solution	1~10	registered	registered
Polyurethane resin dispersion	1~10	registered	registered
Glycol solvent	0.5~2.0	registered	registered
Anionic surfactant	<1	registered	registered
Antifoaming agent	<1	registered	registered
Anti-fungus agent	<1	registered	registered
1-Methyl-2-pyrrolidone (Contained in polyurethane resin dispersion)	0.1~1.5	802-50-4	(5)–1133
Water	Balance	7732-18-5	_

Substances subject to notification restricted by PRTR Law

Not applicable Contains no applicable substances

Poisonous and Deleterious Substances Control Law

Industrial Safety and Health Law

Subject to notification: Article 57-2 of Act, appended table 9 of article 18 of Order Harmful substance subject to notification

No. Substance Name Content 558-2 1-Methyl-2-pyrrolidone $0.1 \sim 1.5\%$

Industrial Safety and Health Law

Subject to indication : Article 57-1 of Act, appended table 9 of article 18 of Order Harmful substance subject to indication

No. Substance Name
558-2 1-Methyl-2-pyrrolidone

Ordinance on the Prevention of Organic Solvent Poisoning

Not applicable Contains no applicable substance

4. FIRST AID MEASURES

IF MASSLY INHALED

- If you feel unwell after inhaling, remove to fresh air and keep at rest in a position comfortable for breathing.
- Seek medical attention if you do not recover from illness.
- If victim vomits, and is still breathing, turn head sideways.
- If victim is breathing weak, give artificial respiration or oxygen inhalation.
- Symptoms may lag behind from the time of inhalation.
- Seek medical attention if above symptoms appear.

IF ON SKIN

- ·Flush immediately with water and wash thoroughly with soap.
- •Remove/take off immediately all contaminated clothing and flush skin with water.
- Seek medical attention if you feel unwell.
- *Wash contaminated clothing before reuse.

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IF IN EYES

- •Rinse eyes with clean water for at least 15 minutes. Use fingers to open eyelid and wash thoroughly throughout every part of the eye including eyeball and eyelid.
- •Remove contact lenses unless firmly stuck to the eye and continue to rinse.
- Seek medical attention after rinsing.
- Seek immediate medical attention if you have severe pain.

IF SWALLOWED

- •Immediately rinse mouth with water.
- *Seek immediate medical attention.
- •Do not induce vomiting.
- •Seek immediate medical attention if a child has possibly swallowed the product.

MOST IMPORTANT SIGN AND SYMPTOM

None in particular

PROTECTION FOR FIRST-AIDERS

None in particular

SPECIAL PRECAUTIONS FOR PHYSICIANS

None in particular

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

· Product itself is non-combustible.

SPECIFIC FIRE-FIGHTING PROCEDURE

- Take fire-fighting procedures from upwind as much as possible.
- Evacuate unauthorized people from the area and lead them to a safe place.
- Move container from fire area if it can be done without risk.
- Seal off the area to unauthorized people.
- Cool surrounding area with water spray to prevent temperature rising of peripheral facilities that could be caused by radiation heat.
- •Take appropriate measures to prevent environment-affecting substances from flowing out.

PROTECTION FOR FIRE-FIGHTERS

- Apply suitable equipment such as gloves, goggles, and mask.
- *Take procedures from upwind and avoid inhalation of toxic gas. Wear respiratory equipment as needed.

6. ACCIDENTAL RELEASE MEASURES

PRECAUTIONS FOR HUMAN BODY, PROTECTIVE EQUIPMENT AND EMERGENCY MEASURES

- ·Ventilate area until well after the fire is out.
- •Wear gloves, goggles, and protective clothing when taking measures against leakage.
- Seal off the spilled area by stretching ropes.
- •Wear suitable equipment to avoid skin contact and inhalation of dust /gas.
- •Take measures from upwind and evacuate unprotected personnel from downwind.
- Prepare extinguishing tools and equipments for possible ignition.
- ·Watch your step; spilled area is slippery.

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TO PREVENT ENVIRONMENTAL POLLUTION

•Do not let spills flow into rivers to prevent environmental contamination.

METHODS AND MATERIALS FOE CONTAINMENT AND CLEANING UP

COLLECTION AND NEUTRALIZATION

- •Small amount release; absorb spills with absorbant (sawdust, soil, sand, cloth, etc.) and wipe remains with cloth. Collect absorbants in a sealable container for disposal.
- ·Large amount release; prevent outflow by mounting soil and take procedures after channelling it to a safe place.
- ·Product is alkali; use acid (dilute hydrochloric acid, dilute sulfuric acid, etc.) to neutralize if necessary.
- Absorb remains with soil or sawdust.
- •Contaminated materials and waste must be disposed in compliance with all relevant regulations.

TO PREVENT SECONDARY DISASTER

•In case of accidental release, you must report to relevant authority without delay in order to prevent possible accident and expansion.

7. HANDLING AND STORAGE

HANDLING

Technological Countermeasures

- · Obtain instruction manual before use.
- •Read thoroughly the usage precautions. Do not use product for other purposes.
- •Do not handle until you have read and understood every safety precautions.
- Product is alkaline; avoid contact with acidic products.
- Do not inhale dust, smoke, gas, mist, vapor, or fume.
- •Use at outdoors or well-ventillated areas.

STORAGE

CONDITION FOR SAFE STORAGE

- •Read storage conditions on label and store properly.
- Keep container tightly closed.
- •Keep away from direct sunlight. Avoid exposing to temperature over 40 deg.
- Keep locked up.
- •Do not store with acid.

SAFE PACKAGE MATERIALS

None in particular

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

FACILITY MEASURES

- *Local ventilation system is required for vapor/smoke/mist releasing conditions.
- •Local ventilation system is required for indoor use.

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Blanks and "-" is equal to "no data".

Component/Chemical Name	Control Limit	Exposure Limit
Alkali soluble resin solution	_	Japan Society for occupational Health(2007):25ppm(Ammonia) ACGIH(2007):25ppm(Ammonia)
Polyurethane resin dispersion	_	-
Glycol solvent	_	_
Anionic surfactant	_	_
Antifoaming agent	_	TWA10ppm
Anti-fungus agent	_	_
1-Methyl-2-pyrrolidone	_	Japan Society for occupational Health: (1-Methyl-2-pyrrolidone) 1ppm, 4mg/m3
Water	_	_

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection

•Wear protective mask. Wear filter respirator, chemical cartridge respirator, or respirator for organic solvent as needed.

Hand Protection

•Wear protective gloves. Wear solvent-resistant gloves or vinyl gloves as needed.

Eye Protection

•Wear protective goggles. Wear chemical goggles or face shield as needed.

Skin and body protection

•Wear body suit or protective apron.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance ∶ Light brown~Brown Liquid

Odour : Intrinsic odor
Odour threshold : Not available

pH : 8.6

Melting Point/Freezing Point: Not availableBoiling Point, Boiling Range: Not available

Flash Point : None

Auto-Ignition Temperature: Not availableFlammability: Not availableFlammable/Explosive Limit: Not availableVapor Pressure: Not availableVapor Density: Not availableEvaporation Rate: Not available

Specific Gravity : 1.01

Solubility : Dispersion

Partition Coefficient : Not available

Decomposition Temperature : Not available

Viscosity : Not available

Other Data : Not available

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10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

• Stable under usual handling condition.

Possibility of Hazardous Reactions

• None in particular

Conditions to Avoid

• None in particular

Incompatible Materials

None in particular

Hazardous Decomposition Products

• None in particular

Others

• None in particular

11. TOXICOLOGICAL INFORMATION

Toxicological Information of Indivisual Component : Blank means "below cutoff limit set by GHS or no data".

Component/ Chemical Name	Acute Toxicity (Oral)	Acute Toxicity (Dermal)	Acute Toxicity (Inhalation : gas)	Acute Toxicity (Inhalation : vapor)	Acute Toxicity (Inhalation : dust, mist)	Skin Corrosiveness/ Irritation	Serious Eye Damage/ Eye Irritation
Alkali soluble resin solution	Classification not possible	Classification not possible	Not applicable	Classification not possible	Classification not possible	Classification not possible	Classification not possible
Polyurethane resin dispersion	Category4	Category4	Not applicable	Category4	Not classified	Category2	Category2A
Glycol solvent	Not classified	Not classified	Classification not possible	Classification not possible	Classification not possible	Category3	Category2B
Anionic surfactant	Classification not possible	Classification not possible	Not applicable	Classification not possible	Classification not possible	Classification not possible	Category2A
Antifoaming agent	Classification not possible	Classification not possible	Classification not possible	Classification not possible	Classification not possible	Classification not possible	Category1
Anti-fungus agent	Not classified	Classification not possible	Not applicable	Classification not possible	Classification not possible	Classification not possible	Classification not possible
1-Methyl-2- pyrrolidone	Not classified	Not classified	Not applicable	Not classified	Not classified	Not classified	Not classified
Water	Not classified	Not classified	Not classified	Not classified	Not classified	Not classified	Not classified

Component Chemical Name	Respiratory or Skin Sensitization	Germ Cell Mutagenesis	Carcinogenecity	Reproductive Toxicity	Target organ toxicity (single exposure)	Target organ toxicity (repeated exposure)	Aspiration Hazard
Alkali soluble resin solution	Classification not possible/Not applicable/Classifica tion not possible	Classification not possible	Classification not possible	Classification not possible	Classification not possible	Classification not possible	Classification not possible
Polyurethane resin dispersion	Not applicable/Not classified	Category1B	Classification not possible	Not classified	Classification not possible	Category1	Classification not possible
Glycol solvent	Classification not possible	Classification not possible	Not classified	Classification not possible	Classification not possible	Classification not possible	Classification not possible
Anionic surfactant	Classification not possible/Not applicable/Classifica tion not possible	Classification not possible	Classification not possible	Classification not possible	Category3	Classification not possible	Classification not possible
Antifoaming agent	Classification not possible/Not applicable/Classifica tion not possible	Classification not possible	Classification not possible	Category2	Classification not possible	Classification not possible	Classification not possible
Anti-fungus agent	Classification not possible	Classification not possible	Classification not possible	Classification not possible	Classification not possible	Classification not possible	Classification not possible
1-Methyl-2- pyrrolidone	Not applicable/Not classified	Not classified	Not classified	Not classified	Not classified	Classification not possible	Not classified
Water	Not classified/Not classified	Not classified	Not classified	Not classified	Not classified	Not classified	Not classified

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12. ECOLOGICAL INFORMATION

Hazardous information of indivisual component : Blank means "below cutoff limit set by GHS" or "no data".

Component/ Chemical Name	Hazardous to the aquatic environment (acute)	Hazardous to the aquatic environment (chronic)
Alkali soluble resin solution	Category3	Classification not possible
Polyurethane resin dispersion	Not classified	Classification not possible
Glycol solvent	Classification not possible	Classification not possible
Anionic surfactant	Classification not possible	Classification not possible
Antifoaming agent	Category3	Classification not possible
Anti-fungus agent	Classification not possible	Classification not possible
1-Methyl-2- pyrrolidone	Not classified	Not classified
Water	Not classified	Not classified

Hazardous to the ozone layer: Not applicable

13. DISPOSAL CONSIDERATIONS

•Disposal of contents/container must be entrusted to officially approved waste dispoal dealers.

14. TRANSPORT INFORMATION

INTERNATIONAL REGULATIONS

UN Class

Not applicable

UN Number

Not applicable

Packing Group: Not applicable

Marine pollutant: Not applicable

Domestic Regulations:

Container Yellow Label

Not applicable

Specific Safety Measures and Conditions for Transport

- Make sure that there are no breaks or leaks from package.
- •Ensure to avoid collapse and damage.
- Package, label, and transport must comply with relevant regulations.
- Avoid direct sunlight.
- •Keep dry. Dangerous if contacted with water.
- •Do not load side-ways.
- •Do not place directly on heated steel or ground during transport.
- Handle with care. Do not add shock to container. Avoid fall or crash.

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15. REGULATORY INFORMATION (Japanese legislation)

Explosives Law

Not restricted

High Pressure Gas Safety Act

Not restricted

Fire Defense Law: Restricted storage limit is shown in ()

Not applicable (as Hazardous Substances of Fire Service Law)

Non-combustible

Poisonous and Deleterious Substances Control Act

Not applicable

(contains no restricted substance, refer to 3. COMPOSITION/INFORMATION ON INGREDIENTS for details)

Industrial Safety and Health Act:

Contains indicatable sustance (refer to 3. COMPOSITION/INFORMATION ON INGREDIENTS for details)

Contains notifiable sustance (refer to 3. COMPOSITION/INFORMATION ON INGREDIENTS for details)

Industrial Safety and Health Act (Ordinance on the Prevention of Organic Solvent Poisoning):

Not applicable Contains no restricted substances (refer to 3. COMPOSITION/INFORMATION ON INGREDIENTS for details)

Industrial Safety and Health Act (Dangerous Goods):

Not applicable

Pollutant Release and Transfer Register Law (PRTR):

Not applicable; contains no restricted substances (refer to 3. COMPOSITION/INFORMATION ON INGREDIENTS for details)

16. OTHER INFORMATIONS

Classification of Chemicals Based on GHS JIS Z7252:2009

Hazard Communication of Chemicals Based on GHS-Labelling and Safety Data Sheet (SDS) JIS Z7253:2012

GHS Category Database (National Institute of Technology and Evaluation homepage)

Japan Advanced Information Center of Safety and Health homepage

Japan Auto Chemical Industry Association (JACA) edited: Management of Chemical Substances Database

Guideline for MSDS of Auto Chemical Products (JACA)

Regulations for Carriage and Storage of Dangerous Goods in Ships (Kaibundo)

× Attention

SDS is presented to dealers and customers as reference informations to retain safety handling of the hazardous chemical product. Dealers and customers are encouraged to refer to this information and realize the necessity to conduct appropriate measurement suitable for the actual conditions of each use with your own responsibility. Therefore this data sheet is not a safety warranty.