## **Section 1 - Chemical Product and Company Identification**

1.1 MSDS Name: Calcium Acetate

**1.2 Product Code:** CAEIH99 (IN HOUSE)

- 1.3. Relevant identified uses of the substance or mixture and uses advised against:
  - 1.3.1 Recommended Use: Laboratory chemicals, Industrial & for professional use only.
  - 1.3.2 Uses advised against: No Information available.

**1.4 CAS No.:** 62-54-4

1.5 Company Identification:

JIANGSU KHONOR CHEMICALS CO., LIMITED

Rm 1902 Easey Comm BLDG, 253-261, Hennessy Rd Wanchai Hongkong 1.4

Phone: 0086-19851820538

Website: https://www.khonorchem.com/

**1.6 Regulatory references:** This Safety Data Sheet (SDS) complies with the requirements of OSHA Hazard Communication Standard (HCS) 29 CFR 1910.1200, REACH Regulation (EC) No 1907/2006, and WHMIS (Workplace Hazardous Materials Information System).

## Section 2 - Hazards Identification

#### 2.1 Classification of the substance or mixture:

Not a hazardous substance or mixture according Regulation (EC) No. 1272/2008.

2.2 Label elements:

Not highly flammable.

- 2.3 Hazard classification of Chemical:
  - Skin Irrit. 2

• Eye Irrit. 2

#### 2.4 Signal:

warning.

#### 2.5 Hazard statements:

H315: Causes skin irritation.

H319: Causes serious eye.

#### 2.6 Precautionary statements:

- P264: Wash hands thoroughly after handling.
- P264+P265: Avoid contact with skin and eyes; do not touch face after handling.
- P280: Wear protective gloves, eye protection, and face protection.
- P302+P352: IF ON SKIN: Wash with plenty of soap and 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.
- P321: Specific treatment (see first aid instructions on this label).
- P332+P317: If skin irritation occurs, get medical attention.
- P337+P317: If eye irritation persists, get medical advice/attention.
- P362+P364: Take off contaminated clothing and wash it before reuse.

#### 2.7 Other hazards:

Results of PBT and vPvB assessment According to the results of its assessment, this substance is not a PBT or a vPvB. Endocrine disrupting properties Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0.1\%$ .

# 2.8 Hazards not otherwise classified (HNOC) or not covered by GHS:

none

2.9 Pictogram:



2.10 NFPA SCALE:



NFPA SCALE (0-4)

2.11 HIMS (U.S.A)

Health	1
Flammability	0
Physical Hazard	0
Personal protection	E

HMIS RATINGS (0-4)

# **Section 3 – Composition/Information on Ingredients**

**3.1 Ingredient name:** Calcium acetate

**3.2 Synonym:** Acetic acid, calcium salt, monohydrate; Calcium

diacetate, Calcium ethanoate, Lime acetate.

**3.3 CAS No.:** 62-54-4

**3.4 EC no.:** 269-613-0

**3.5 Molecular structure:** C<sub>4</sub>H<sub>6</sub>CaO<sub>4</sub>

**3.6 Molecular weight:** 158.17 g/mol

**3.7 Purity:** 99 - 100.5%

## Section 4 – First Aid Measures

## 4.1 Description of first aid measures:

#### 4.1.1 General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### 4.1.2 If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### 4.1.3 Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If the victim is conscious and alert, give 2-4 cups of milk or water. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

#### 4.1.4 In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

## 4.1.5 In case of eye contact

In case of contact, immediately flush eyes with plenty of water. Check for and remove any contact lenses. Get medical attention if irritation occurs.

# 4.2 Most important symptoms and effects, both acute and delayed:

Shortness of breath. Irritation. Nausea. Headache and, in severe cases, signs of hypercalcemia such as confusion, weakness, or cardiac arrhythmia. Described in the labeling and/or in section 11.

# 4.3 Indication of any immediate medical attention and special treatment needed:

Treat symptomatically. No specific antidote is available. Ensure symptomatic treatment based on clinical judgment and the condition of the patient. Calcium acetate ingestion may lead to hypercalcemia in large doses. Monitor calcium levels and provide appropriate treatment if symptoms of hypercalcemia occur.

## Section 5 - Fire Fighting Measures

## 5.1 Extinguishing media:

5.1.1 Flammability Conditions

Combustible; May burn but does not ignite readily.

5.1.2 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.1.3 Auto-Ignition Temperature

Not available.

5.1.4 Flash Points

CLOSED CUP: Higher than 93.3°C (200°F).

5.1.5 Flammable Limits

Not available.

## 5.2 Special hazards arising from the substance or mixture:

Carbon oxides, Calcium oxide, Carbon dioxide (CO<sub>2</sub>).

5.2.1 Fire and Explosion Hazard

Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source may pose an explosion hazard. Avoid dust accumulation.

# **5.3 Advice for firefighters:**

Wear self-contained breathing apparatus for firefighting if necessary.

Wear self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firefighter's uniform may provide limited protection.

5.3.1 Special Fire Fighting Instructions

Contain runoff from fire control or dilution water - Runoff may pollute waterways.

5.3.2 Fire Fighting Media and Instructions

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

# **5.4 Conditions for Hazardous Decomposition:**

Hazardous decomposition products may form at high temperatures or when exposed to open flames.

#### 5.5 Combustion Behavior:

In case of fire, dense smoke or irritating fumes may be produced.

#### 5.6 Fire Classification:

Calcium acetate is classified as a combustible material, but it does not ignite readily.

#### 5.7 Further information:

Prevent fire extinguishing water from contaminating surface water or the ground water system.

#### **Section 6 – Accidental Release Measures**

#### **6.1 Personal precautions:**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

## **6.2 protective equipment:**

Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.

## 6.3 Emergency procedure:

Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. Prevent dust cloud.

# **6.4 Environmental precautions:**

Do not let product enter drains. If the material enters waterways or drains, inform local environmental authorities immediately.

## 6.5 Methods and materials for containment and cleaning up:

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Cover drains. Collect, bind, and pump off spills. Wear protective gloves (e.g., nitrile or PVC), safety goggles, and a particulate respirator (e.g., N95 or higher) when handling spills.

6.5.1 Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
6.5.2 Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. After cleaning, decontaminate the area using a mild detergent solution to remove residue. Avoid high-pressure washing to prevent dispersing fine dust.

#### 6.6 Reference to other sections:

Dispose of collected material and contaminated cleanup tools in accordance with local, regional, and international hazardous waste regulations (see Section 13).

## **Section 7 – Handling and Storage**

# 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

## 7.1.1 Handling Practices

Use appropriate protective equipment as specified in Section 8. Handle in a well-ventilated area to minimize dust exposure. Avoid actions that generate fine dust.

## 7.1.2 Hygiene Measures

Wash hands, face, and exposed skin thoroughly after handling. Do not eat, drink, or smoke while handling the product.

**7.2 Conditions for safe storage, including any incompatibilities:** Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Hygroscopic.

# 7.2.1 Storage class (TRGS 510)

Non-Combustible Solids.

## 7.2.3 Incompatible Materials

Avoid storing near strong oxidizers, acids, and bases. Contact with moisture should be minimized to prevent clumping and degradation.

## 7.2.4 Specific Storage Guidance

## 7.2.5 Emergency Storage Measures

In case of accidental exposure to incompatible conditions, relocate the product to a safe environment and inspect containers for damage.

# 7.2.6 Fire and Explosion Risks

Avoid creating dust clouds, which may pose a fire or explosion hazard. Keep away from ignition sources, including static electricity.

# Section 8 – Exposure Controls / Personal Protection

## 8.1 Control parameters:

**National Limit Values** 

**Occupational exposure limit values (Workplace Exposure Limits)** 

Country	Name of Agent	CAS No.	Identifier	TWA [mg/ml]	STEL [mg/ml]	Notation	Source
GB	Dust		WEL	10		i	EH40/2005
GB	Dust		WEL	4		r	EH40/2005

#### **Notation:**

**Celling-C** Celling value is a limit value above which exposure should not occur

i Inhalable fractionr Respirable fraction

**STEL** Short-term exposure limit: a limit value above which exposure should not

occur and which is related to a 15-minute period (Unless otherwise

specified)

**TWA** Time weighted average (long term exposure limit): measured or calculated

in relation to a reference period of 8 hours' time-weighted average (unless

otherwise specified)

#### **Human Health Values:**

Relevant DNELs and other threshold levels					
Endpoint	Threshold	Protection	Used in	<b>Exposure Time</b>	
	Level	goal, route of			
		exposure			
DNEL	1.020 mg/m <sup>3</sup>	Human,	Worker(industry)	Chronic-	
		Inhalatory		Systemic	
				Effects	
DNEL	6.122 mg/m <sup>3</sup>	Human,	Worker(industry)	Acute-	
		Inhalatory		Systemic	
				Effects	

DNEL	11.57 mg/kg bw/day	Human, dermal	Worker(industry)	Chronic- Systemic Effects	
DNEL	69.44 mg/kg bw/day	Human, dermal	Worker(industry)	Acute- Systemic Effects	

#### **Environmental values:**

Relevant PNECs and other threshold levels						
Endpoint	Threshold	Organism	Environmental	<b>Exposure Time</b>		
	Level		Compartment			
PNEC	0.964 mg/l	Aquatic	Freshwater	Short- term		
		organisms		(Single-instance)		
PNEC	0.096 mg/l	Aquatic	Marine water	Short- term		
		organisms		(Single-instance)		
PNEC	0.7 g/l	Aquatic	Sewage	Short- term		
		organisms	treatment plant	(Single-instance)		
			(STP)			
PNEC	0.726 mg/kg	Aquatic	Freshwater	Short- term		
		organisms	sediment	(Single-instance)		
PNEC	0.073 mg/kg	Aquatic	Marine	Short- term		
		organisms	sediment	(Single-instance)		
PNEC	0.154 mg/kg	Terrestrial	soil	Short- term		
		organisms		(Single-instance)		

- 8.1.1 Components with workplace control parameters: No specific exposure standards are available for this product. For dusts from solid substances without
- 8.1.2. Engineering Controls: Ensure local exhaust ventilation is used in areas where dust formation occurs. If general ventilation is insufficient, supplement with local exhaust systems.
- 8.1.3 specific occupational exposure standards:
- Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m3 (measured as inhalable dust).

- New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m3; TWA = 3 mg/m3 (respirable dust).

#### 8.2 Exposure controls:

8.2.1 Appropriate engineering controls accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### 8.3 Personal protective equipment:

## 8.3.1 Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### 8.3.2 Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact -

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Splash contact -

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

## 8.3.3 Body Protection

Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## 8.3.4 Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 8.4 Control of environmental exposure:

Do not let product enter drains.

Section 9 – Physical and Chemical Properties				
Appearance Form	Solid, powder in nature, Hygroscopic			
Color	White			
Odour	Acetic acid. (Slight.)			
Calubility	Water: Fully soluble at 100 g/L (25 °C). Ethanol:			
Solubility	Slightly soluble			
Dissociation constant (pKa) at 25 °C	4.76			
Vapour pressure at 20 °C	0.00548 mm Hg			
Specific gravity	1.52			
Melting point	160 °C (Decomposes)			
Auto-ignition temperature	340 °C			
Decomposition temperature	> 160 °C			
рН	7 – 9			
pH solution concentration	5 %			
Density	1.52 g/cm³ at 20 °C			
Relative density	1.5220 °C			

Partition coefficient n-octanol/water

(log value):

Bulk density ~ 1.500 kg/m<sup>3</sup>

Initial boiling point and boiling range No data available

Flash point No data available

# Section 10 - Stability and Reactivity

#### 10.1 Reactivity:

While Calcium Acetate itself is not flammable, dust from fine particles can form explosive mixtures in air when exposed to ignition sources.

#### 10.2 Chemical stability:

Stable under recommended storage conditions.

## 10.3 Possibility of hazardous reactions:

No dangerous reactions known under normal conditions of use.

10.3.1 Polymerization:

Will not occur.

#### 10.4 Conditions to avoid:

Avoid generating dust. Keep away from heat and sources of ignition. Keep away from heat. Decomposition takes place from temperatures above: 160 °C. Protect from moisture.

## 10.5 Incompatible materials:

Strong oxidizing agents, strong acids, and bases, which may react violently.

# 10.6 Hazardous decomposition products:

Fire/decomposition may produce irritating, toxic and/or corrosive fumes, including Carbon oxides, Calcium oxides. In the event of fire: see section 5.

## **Section 11 - Toxicological Information**

#### 11.1 Routes of Exposure:

- 11.1.1 Ingestion: No adverse effects expected; large amounts may cause nausea and vomiting.
- 11.1.2 Eye Contact: May cause mechanical irritation.
- 11.1.3 Skin Contact: May cause mechanical irritation.
- 11.1.4 Inhalation: Inhalation of dust may cause respiratory tract irritation.

#### 11.2 Acute Toxicity:

- Oral (Rat, male and female): LD50 = 4,280 mg/kg (OECD Test Guideline 401) Remarks: Based on analogy with calcium diacetate.
- Inhalation (Rat, male and female, 4 h, aerosol): LC50 > 5.6 mg/L (OECD Test Guideline 403)
  - Remarks: Based on analogy with calcium diacetate.
- Dermal (Rabbit, female): LD50 > 27,247.2 mg/kg (OECD Test Guideline 402)
   Remarks: Based on analogy with fumaric acid.
- Intravenous (Rat): LDLo = 147 mg/kg.
- Intraperitoneal (Mouse): LD50 = 75 mg/kg.
- Intravenous (Mouse): LD50 = 203 mg/kg.

## **11.3 Chronic Toxicity:**

Long-term exposure may affect reproduction, growth, and development in aquatic organisms.

• EC50 (Microorganisms, 16 h): 6.949 mg/L

## 11.4 Derived No-Effect Levels (DNEL):

Acute Effects (Systemic, Dermal): DNEL = 11.57 mg/kg bw/day.

Chronic Effects (Systemic, Dermal): DNEL = 69.44 mg/kg bw/day.

Acute Effects (Systemic, Inhalation): DNEL = 1,020.28 mg/m<sup>3</sup>.

Chronic Effects (Systemic, Inhalation): DNEL =  $6,121.68 \text{ mg/m}^3$ .

#### 11.5 Skin Corrosion/Irritation:

Skin (Rabbit): No skin irritation observed (OECD Test Guideline 404)

## 11.6 Serious Eye Damage/Eye Irritation:

Eyes (Rabbit): No eye irritation observed (OECD Test Guideline 405)

## 11.7 Respiratory or Skin Sensitization:

Did not cause sensitization in laboratory animals.

## 11.8 Germ Cell Mutagenicity:

No data available.

## 11.9 Carcinogenicity:

No component at concentrations ≥0.1% is classified as a probable, possible, or confirmed human carcinogen by IARC.

## 11.10 Reproductive Toxicity:

No data available.

# 11.11 Specific Target Organ Toxicity – Single Exposure:

No data available.

# **11.12** Specific Target Organ Toxicity – Repeated Exposure:

No data available.

#### 11.13 Aspiration Hazard:

No aspiration hazard is expected based on the physical and chemical properties of the substance.

#### 11.14 Additional Information:

Available toxicological data suggest a low risk of severe toxicity under normal conditions of use. No significant adverse health effects have been reported in occupational settings.

## **Section 12 - Ecological Information**

#### 12.1 Toxicity:

12.1.1 Toxicity to fish Semi-static test LC50-Oncorhynchus mykiss (rainbow trout)->

1.000 mg/l-96h

(OECD Test Guideline 203)

Remarks: Read-across (Analogy)

12.1.2 Toxicity to daphnia & Static test EC50 -Daphnia (water flea)-> 919 mg/l-48 h

ErC50-algae > 4029 mg/l -072h

EC50 - microorganisms 694 g/l - 16h

12.1.3 other aquatic (OECD Test Guideline 202)

12.1.4 invertebrates Remarks: Read-across (Analogy)

#### 12.5 Results of PBT and vPvB assessment:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

# 12.5.1 Persistence and degradability:

Theoretical Oxygen Demand: 0.6357 mg/mg
Theoretical Carbon Dioxide: 0.9992 mg/mg

12.5.2 Biodegradation:

The substance is readily biodegradable.

Process of degradability				
Process Degradation Rate Time				
DOC removal	99%	28 d		

#### 12.6 Bioaccumulative Potential:

Does not significantly accumulate in organisms.

n-octanol/water (log KOW)	-1.38(ECHA)
BCF	3.162 (ECHA)

## 12.7 Mobility in Soil:

The Organic Carbon normalised	0 (ECHA)
adsorption coefficient	

## 12.8 Other adverse effects: No data available

## **Section 13 - Disposal Considerations**

#### 13.1 Waste treatment methods:

#### **13.1.1 Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

## 13.2 Contaminated packaging:

Dispose of as unused product. Relevant provisions relating to waste. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

#### 13.3 Remarks:

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

# **Section 14 - Transport Information**

14.1 UN number:

ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name:

ADR/RID: Not dangerous goods

**IMDG:** Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es):

ADR/RID: - IMDG: - IATA: -

**14.4** Packaging group:

ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards:

ADR/RID: no IMDG Marine pollutant: no IATA: no

**14.6 Special precautions for user:** 

**14.7 Further information:** Not classified as dangerous in the meaning of transport regulations. In the event of accidental spillage during transport, contain the material to prevent environmental contamination and follow Section 6

# **Section 15 - Regulatory Information**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available.

#### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

#### 15.3 EU-Regulations

15.3.1 REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

15.3.2 REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

15.3.3 REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

15.3.4 PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

15.3.5 POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

15.3.6 Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

15.3.7 Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

15.3.8 Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

15.3.9 Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

## **15.4 National/Regional Inventories:**

Australia (AIIC) Listed
Canada (DSL) Listed

Canada (NDSL) Not Listed

China (IECSC) Listed

Europe (EINECS)

Not Determined

Europe (REACh)

Not Determined

Japan (ENCS/METI) Exempt
Korea (KECI) KE-04463
Malaysia (EHS Register) Exempt
New Zealand (NZIoC) Listed

Philippines (PICCS)

Switzerland (Giftliste 1)

Not Determined

Not Determined

Not Determined

Not Determined

Taiwan (NCSR) Listed USA (TSCA) Listed

## 15.5 United States (USA):

# SARA Section 311/312 (Specific toxic chemical listings):

None of the ingredients is listed

# SARA Section 313 (Specific toxic chemical listings):

None of the ingredients is listed

## **RCRA (hazardous Waste Code):**

None of the ingredients is listed

# **TSCA (Toxic Substances Control act):**

5743-26-0 None of the chemicals in this material have a SNUR under TSCA.

## **CERCLA (Comprehensive Environmental Response, Compensation, and**

Liability act): None of the ingredients is listed

#### 15.6 DSCL (EEC):

This product is not classified according to the EU regulations.

S24/25- Avoid contact with skin and eyes.

## 15.7 HMIS (U.S.A.):

Health Hazard: 1 Fire Hazard: 0 Reactivity: 0

Personal Protection: E

#### 15.8 National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 0 Reactivity: 0

## **Section 16 - Other Information**

# Abbreviations and acronyms:

ATE Acute Toxicity Estimate

**BCF** Bioconcentration factor

BLV Biological limit value

BOD Biochemical oxygen demand (BOD)

COD Chemical oxygen demand (COD)

DMEL Derived Minimal Effect level

**DNEL Derived-No Effect Level** 

EC-No. European Community number

EC50 Median effective concentration

**EN European Standard** 

IARC International Agency for Research on Cancer

IATA International Air Transport Association

**IMDG International Maritime Dangerous Goods** 

LC50 Median lethal concentration

LD50 Median lethal dose

LOAEL Lowest Observed Adverse Effect Level

NOAEC No-Observed Adverse Effect Concentration

NOAEL No-Observed Adverse Effect Level

**NOEC No-Observed Effect Concentration** 

OECD Organisation for Economic Co-operation and Development

**OEL Occupational Exposure Limit** 

**PBT Persistent Bioaccumulative Toxic** 

PNEC Predicted No-Effect Concentration

RID Regulations concerning the International Carriage of Dangerous Goods by Rail

SDS Safety Data Sheet

STP Sewage treatment plant

ThOD Theoretical oxygen demand (ThOD)

TLM Median Tolerance Limit

**VOC Volatile Organic Compounds** 

CAS-No. Chemical Abstract Service number

N.O.S. Not Otherwise Specified

vPvB Very Persistent and Very Bioaccumulative

ED Endocrine disrupting properties

**Disclaimer:** This material safety data sheet is provided as an information resource only.

Jiangsu Khonor Chemicals Co., Limited believes the information containe d herein is accurate and compiled from reliable sources. It is the responsibility of the user to verify its validity. The buyer assumes all responsibility of using and handling the product in accordance with federal, state, and local regulations.

Issue Date: Jan, 2025

Revision Date: Dec, 2026	Revision No.:
03	