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Web:www.yacoo.com.cn
E-mail:sales@yacoo.com.cn

Material Safety Data Sheet

SECTION 1:CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name：EDTA-3K•2H2O

Company: Suzhou YACOO Science Co., Ltd.

Address: No.128,FangZhou Road,Suzhou Industral Park,China

Tel：0512-87182055

Fax：0512-87182056

SECTION 2: Hazards identification

Summary of emergency

May be harmful if swallowed., Harmful if inhaled., May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled. Show this material safety data sheet to the doctor in attendance. After inhalation: fresh air. Immediately call in physician., If breathing stops: immediately apply artificial respiration, if necessary also oxygen. In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. After eye contact: rinse out with plenty of water., Remove contact lenses. After swallowing: immediately make victim drink water (two glasses at most)., Consult a physician. Combustible. Development of hazardous combustion gases or vapours possible in the event of fire. Violent reactions possible with: Strong oxidizing agents

2.1GHS Classification

Acute toxicity, Oral (Category 5), H303
Acute toxicity, Inhalation (Category 4), H332
Specific target organ toxicity - repeated exposure, Inhalation (Category 2), Respiratory Tract, H373
For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2GHS Label elements, including precautionary statements

Pictogram 
Signal Word Warning
Hazard statement(s)
H303 May be harmful if swallowed.
H332 Harmful if inhaled.
H373
May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.
Precautionary statement(s)
Prevention
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P271 Use only outdoors or in a well-ventilated area.
Response
P304 + P340 + P312

IF INHALED: Remove person to fresh air and keep comfortable
for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P312 Call a POISON CENTER/ doctor if you feel unwell.
Disposal
P501 Dispose of contents/ container to an approved waste disposal plant.
Caution - substance not yet tested completely.

2.3Physical and chemical hazards

Referring to current information, no physical or chemical hazard.

2.4Health hazards

H303 May be harmful if swallowed.
H332 Harmful if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

2.5Environmental hazards

Referring to current information, no environmental hazard.

2.6Other hazards - none

SECTION 3: Composition/information on ingredients

Substance / Mixture: Substance

3.1Substances

Formula: $C_{10}H_{13}K_3N_2O_8 \cdot 2H_2O$
Molecular weight: 442.54 g/mol
CAS-No.: 65501-24-8
EC-No.: 676-659-9
Hazardous ingredients

Component	Classification	Concentration
Potassium 2,2'-({2-[(carboxylatomethyl)(carboxymethyl)amino]ethyl}imino)diacetate hydrate (3:1:2)		
	Acute toxicity Category 5; Acute toxicity Category 4; Specific target organ toxicity - repeated exposure Category 2; H303, H332, H373	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1Description of first-aid measures

General advice
Show this material safety data sheet to the doctor in attendance.
If inhaled
After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.
In case of skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
In case of eye contact
After eye contact: rinse out with plenty of water. Remove contact lenses.
If swallowed
After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
4.3Indication of any immediate medical attention and special treatment needed
No data available
4.4Notes to physician
No data available

SECTION 5: Firefighting measures
5.1Extinguishing media
Suitable extinguishing media
Water Foam Carbon dioxide (CO2) Dry powder
Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.
5.2Special hazards arising from the substance or mixture
Carbon oxides Nitrogen oxides (NOx) Potassium oxides Combustible.
Development of hazardous combustion gases or vapours possible in the event of fire.
5.3Advice for firefighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures
6.1Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.
6.2Environmental precautions
Do not let product enter drains.
6.3Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.
6.4Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage
7.1Precautions for safe handling
Advice on safe handling
Work under hood. Do not inhale substance/mixture.
Hygiene measures
Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.
For precautions see section 2.2.
7.2Conditions for safe storage, including any incompatibilities
Storage conditions
Tightly closed. Dry.
Storage class
Storage class (TRGS 510): 11: Combustible Solids

SECTION 8: Exposure controls/personal protection

8.1Control parameters

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2Exposure controls

Appropriate engineering controls

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

Body Protection

protective clothing

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1Information on basic physical and chemical properties

a)Physical state solid

b)Color No data available

c)Odor No data available

d)Melting point/freezing point

Melting point/range: 182 ° C

e)Initial boiling point and boiling range

No data available

f)Flammability (solid, gas) No data available

g)Upper/lower flammability or explosive limits

No data available

h)Flash point No data available
i)Autoignition temperature No data available
j)Decomposition temperature No data available
k)pH 8 - 9 at 50 g/l at 20 ° C
l)Viscosity
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
m)Water solubility soluble
n)Partition coefficient: n-octanol/water
No data available
o)Vapor pressure No data available
p)Density No data available
Relative density No data available
q)Relative vapor density No data available
r)Particle characteristics No data available
s)Explosive properties No data available
t)Oxidizing properties none

9.2Other safety information

No data available

SECTION 10: Stability and reactivity

10.1Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.2Possibility of hazardous reactions

Violent reactions possible with:
Strong oxidizing agents

10.3Conditions to avoid

no information available

10.4Incompatible materials

No data available

10.5Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - 2,800 mg/kg
(OECD Test Guideline 401)
Remarks: The value is given in analogy to the following substances:
Ethylenedinitrilotetraacetic acid disodium salt
Acute toxicity estimate Inhalation - 1.6 mg/l - dust/mist

(Expert judgment)
Remarks: The value is given in analogy to the following substances:
Ethylenedinitrilotetraacetic acid disodium salt
Dermal: No data available
Skin corrosion/irritation

Skin - Rabbit
Result: No skin irritation
(OECD Test Guideline 404)
Remarks: The value is given in analogy to the following substances:
Ethylenedinitrilotetraacetic acid disodium salt
Serious eye damage/eye irritation
Eyes - Rabbit
Result: No eye irritation
(OECD Test Guideline 405)
Remarks: The value is given in analogy to the following substances:
Ethylenedinitrilotetraacetic acid disodium salt
Respiratory or skin sensitization Maximization Test - Guinea pig Result: negative
(OECD Test Guideline 406)
Remarks: The value is given in analogy to the following substances:
Ethylenedinitrilotetraacetic acid disodium salt
Germ cell mutagenicity
Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Method: OECD Test Guideline 476
Result: negative
Remarks: The value is given in analogy to the following substances:
Ethylenedinitrilotetraacetic acid disodium saltThe value is given in analogy to the following substances: Ethylenedinitrilotetraacetic acid trisodium saltTest Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Result: negative
Remarks: The value is given in analogy to the following substances:
Ethylenedinitrilotetraacetic acid trisodium saltTest Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
Remarks: The value is given in analogy to the following substances:
Ethylenedinitrilotetraacetic acid trisodium saltTest Type: Ames test Test system: Escherichia coli
Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471
Result: negative
Remarks: The value is given in analogy to the following substances: Ethylenedinitrilotetraacetic acid trisodium saltCarcinogenicity
No data available
Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
Inhalation - May cause damage to organs through prolonged or repeated exposure. - Respiratory Tract
Remarks: The value is given in analogy to the following substances: Ethylenedinitrilotetraacetic acid disodium salt

Aspiration hazard
No data available

11.2Additional Information

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Quantitative data on the toxicity of this product are not available.
Further data:
Other dangerous properties can not be excluded.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1Toxicity

Toxicity to fish
static test LC50 - Lepomis macrochirus (Bluegill) - 792 mg/l - 96 h Remarks: (ECHA)
The value is given in analogy to the following substances: Ethylenedinitrilotetraacetic acid,Tetrasodiumsalt

Toxicity to daphnia and other aquatic invertebrates
static test EC50 - Daphnia magna (Water flea) - 610 mg/l - 24 h (ISO 6341)
Remarks: (ECHA)
The value is given in analogy to the following substances: Ethylenedinitrilotetraacetic acid,Tetrasodiumsalt

Toxicity to algae
static test - Pseudokirchneriella subcapitata (green algae) - > 100 mg/l - 72 h
(OECD Test Guideline 201)
Remarks: (ECHA)
The value is given in analogy to the following substances: Edetate disodium dihydrateThe value is given in analogy to the following substances: Sodium feredetate

12.2Persistence and degradability

Expected to be biodegradable (anhydrous substance)

12.3Bioaccumulative potential

No data available

12.4Mobility in soil

No data available

12.5Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6Endocrine disrupting properties

No data available

12.7Other adverse effects

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Offer surplus and non-recyclable solutions to a licensed disposal company.

SECTION 14: Transport information
14.1UN number
ADR/RID: - IMDG: - IATA-DGR: -
14.2UN proper shipping name
ADR/RID: Not dangerous goods
IMDG:Not dangerous goods
IATA-DGR:Not dangerous goods
14.3Transport hazard class(es)
ADR/RID: - IMDG: - IATA-DGR: -
14.4Packaging group
ADR/RID: - IMDG: - IATA-DGR: -
14.5Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA-DGR: no
14.6Special precautions for user
14.7Incompatible materials

Further information
Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulatory information

Measures on the Environmental Administration of New Chemical Substances Registration
Registration/Notification number:
B1A222214039

Downstream users need to comply with the conditions of safe use of the chemical, understand the environmental and health hazard and risk management measures identified on the SDS as well as the local/national regulations concerning the chemical.
Other regulations
Please pay attention on the waste treatment should also comply with local regulations requirement.

SECTION 16:OTHER INFORMATION
The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.