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Material Safety Data Sheet

SECTION 1:CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: AMP

Company: Suzhou YACOO Science Co., Ltd.

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

Tel: 0512-87182055

Fax: 0512-87182056

SECTION 2: Hazards identification

Summary of emergency

Semi-solid melting to a liquid May be harmful if swallowed., Causes severe skin burns and eye damage., Harmful to aquatic life with long lasting effects. First aiders need to protect themselves., Show this material safety data sheet to the doctor in attendance. After inhalation: fresh air. Call in physician. In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower., Call a physician immediately. After eye contact: rinse out with plenty of water., Immediately call in ophthalmologist., Remove contact lenses. After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation)., Call a physician immediately., Do not attempt to neutralise. Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

2.1GHS Classification

Acute toxicity, Oral (Category 5), H303

Skin corrosion/irritation (Category 1), H314

Serious eye damage/eye irritation (Category 1), H318

Long-term (chronic) aquatic hazard (Category 3), H412

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 Danger

Hazard statement(s)

H303 May be harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects. Precautionary statement(s)

Prevention

P260 Do not breathe dust.



P264 Wash skin thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P312 Call a POISON CENTER/ doctor if you feel unwell.

P363 Wash contaminated clothing before reuse.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

Caution - this mixture contains a substance not yet fully tested.

Reduced Labeling (≤ 125 ml)

Pictogram

Signal Word Danger Hazard statement(s)

H303 May be harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

none

2.3 Physical and chemical hazards

Referring to current information, no physical or chemical hazard.

2.4 Health hazards

H303 May be harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

2.5 Environmental hazards

H412 Harmful to aquatic life with long lasting effects.

2.6 Other hazards - none

SECTION 3: Composition/information on ingredients

Substance / Mixture: Substance

3.1 Substances

Synonyms: β -Aminoisobutyl alcohol AMP 95

Formula: C₄H₁₁NO

Molecular weight: 89.14 g/mol

CAS-No.: 124-68-5

EC-No.: 204-709-8

Index-No.: 603-070-00-6

Hazardous ingredients

Component	Classification	Concentration
2-Amino-2-methyl-1-propanol	Acute toxicity Category 5; Skin corrosion/irritation Category 2; Serious eye damage/eye irritation Category 1; Long-term (chronic) aquatic hazard Category 3; H303, H315, H318, H412	<= 100 %
2-methylamino-2-methyl-1-propanol	Skin corrosion/irritation Category 2; Serious eye damage/eye irritation Category 2A; Long-term (chronic) aquatic hazard	>= 2.5 - < 10 %
	Category 3; H315, H319, H412	

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

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

4.2 Most 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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

4.4 Notes to physician

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing 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.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NO_x)

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice 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.

Remove container from danger zone and cool with water. 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

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid inhalation of vapours/aerosols or dusts. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods 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 with suitable equipment. Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities Storage conditions

Tightly closed. Dry.

Storage class

Storage class (TRGS 510): 8A: Combustible, corrosive hazardous materials

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face 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). Tightly fitting safety goggles

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 Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 30 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when dusts/vapours/aerosols 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

9.1 Information on basic physical and chemical properties

a) Physical state Semi-solid melting to a liquid

b) Color No data available

c) Odor No data available

d) Melting point/freezing point Melting point/range: 24 - 28 ° C - lit.

e) Initial boiling point and boiling range 165 ° C - lit.

f) Flammability (solid, gas) No data available

g) Upper/lower flammability or explosive limits No data available

h) Flash point 68 ° C - closed cup

i) Autoignition temperature No data available

j) Decomposition temperature No data available

k) pH 11.0 - 12.0 at 8.9 g/l at 25 ° C

l) Viscosity Viscosity, kinematic: No data available Viscosity, dynamic: 102 mPa.s at 30 ° C

m) Water solubility 8.9 g/l at 20 ° C - completely soluble

n) Partition coefficient: n-octanol/water log Pow: -0.63

o) Vapor pressure < 1 hPa at 25 ° C

p) Density 0.934 g/cm³ at 25 ° C - lit.

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 No data available

9.2Other safety information

Relative vapor density 3.08 - (Air = 1.0)

SECTION 10: Stability and reactivity

10.1Chemical stability

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

10.2Possibility of hazardous reactions

No data available

10.3Conditions to avoid

Strong heating.

10.4Incompatible materials

Oxidizing agents, Strong acids, Copper, Brass, Aluminum

10.5Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1Information on toxicological effects Acute toxicity

Acute toxicity estimate Oral - 3,223 mg/kg

(Calculation method)

LD50 Oral - Rat - male - 2,900 mg/kg (2-Amino-2-methyl-1-propanol)

(OECD Test Guideline 401)

Inhalation: No data available

LD50 Dermal - Rabbit - male and female - > 2,000 mg/kg (2-Amino-2-methyl-1-propanol)

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit (2-Amino-2-methyl-1-propanol)

Result: Not corrosive

(Regulation (EC) No. 440/2008, Annex, B.40)

Remarks: (ECHA)

Skin - Rabbit (2-Amino-2-methyl-1-propanol)

Result: Skin irritation

Remarks: (ECHA)

Serious eye damage/eye irritation

Eyes - Rabbit (2-Amino-2-methyl-1-propanol)

Result: Severe eye irritation

Remarks: (ECHA)

Respiratory or skin sensitization

Buehler Test - Guinea pig (2-Amino-2-methyl-1-propanol)

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Ames test

(2-Amino-2-methyl-1-propanol)

Test system: Escherichia coli/Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

(2-Amino-2-methyl-1-propanol)

Test system: Mouse lymphoma test

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

(2-Amino-2-methyl-1-propanol)

Test Type: Micronucleus test

Species: Mouse

Cell type: Bone marrow

Application Route: Intraperitoneal injection

Method: OECD Test Guideline 474

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (2-Amino-2-methyl-1-propanol)

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fishstatic test LC50 - Lepomis macrochirus (Bluegill sunfish) - 190 mg/l

- 96 h (2-Amino-2-methyl-1-propanol) (US-EPA)

Toxicity to daphnia and other aquatic invertebrates
static test LC50 - Daphnia magna (Water flea) - 193 mg/l - 48 h (2- Amino-2-methyl-1-propanol)
(US-EPA)

Toxicity to algaestatic test EC50 - Desmodesmus subspicatus (green algae) - 402 mg/l - 72 h (2-
Amino-2-methyl-1-propanol)
(OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - activated sludge - 342.9 mg/l - 3 h (2-Amino-2- methyl-1-
propanol)
(OECD Test Guideline 209)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d (2-Amino-2-methyl-1-propanol) Result: 89.3 % -
Readily biodegradable.
(OECD Test Guideline 301F)

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

No data available

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

14.1 UN number

ADR/RID: -IMDG: -IATA-DGR: -

14.2 UN proper shipping name ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA-
DGR: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: -IMDG: -IATA-DGR: -

14.4 Packaging group

ADR/RID: -IMDG: -IATA-DGR: -

14.5 Environmental hazards

ADR/RID: noIMDG Marine pollutant: noIATA-DGR: no

14.6 Special precautions for user

Based on chemical properties, choose appropriate tools and conditions of transport. Transporting tools shall be equipped with appropriate and sufficient firefighting equipment and emergency leaking installations. If transporting by road, please go along the specified route.

14.7 Incompatible materials

Oxidizing agents, Strong acids, Copper, Brass, Aluminum

SECTION 15: Regulatory information

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

National regulatory information

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.