

Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product name	MTT-Cell Based Proliferation/Toxicity Assay Kit
Cat.No.	K017
Application	For research use only
Company	Wuhan Fine Biotech Co., Ltd
Address	1-2 Floor, BLD 22, Optics Valley Biopharmaceutical Accelerator, No.388 Gaoxin 2nd Road, East Lake High Tech Development Zone, Wuhan, 430074, Hubei, China
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SECTION 2 HAZARDS IDENTIFICATION

Items	Physical form	Hazardous Ingredient	Concentration	CAS No.
Reagent 1	Yellow to orange powder	MTT	25mg	298-93-1
Reagent 2	Odorless and colorless, liquid	No hazards	-	-
Reagent 3	Odorless and colorless, liquid	Isobutanol	1%	78-83-1

2.1 HAZARD STATEMENT

Classification according to GHS

2.1.1 MTT

H315: Causes skin irritation.

H319: Causes serious eye irritation

H335: May cause respiratory irritation.

H341: Suspected of causing genetic defects.

2.1.2 Isobutanol

H227: Combustible liquid.

2.2 PRECAUTION STATEMENT

Classification according to GHS

2.2.1 MTT

P202: Do not handle until all safety precautions have been read and understood .

P261: Avoid breathing dust.

P264: Wash skin thoroughly after handling.

P271: Use only outdoor or in a well-ventilated area.

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

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 + P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313: IF exposed or concerned: Get medical advice/attention.

P332 + P313: IF skin irritation occurs: Get medical advice/ attention.

P337 + P313: IF eye irritation persists: Get medical advice/ attention.

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

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

2.2.2 Isobutanol

P210: Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

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

P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

P405 + P235: Store in a well-ventilated place. Keep cool.

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

SECTION 3 INFORMATION ON INGREDIENTS

3.1 Reagent 1

Ingredient	Concentration	CAS No.
MTT	100%	298-93-1

3.2 Reagent 2

Ingredient	Concentration	CAS No.
H ₂ O	100%	7732-18-5

3.3 Reagent 3

Ingredient	Concentration	CAS No.
H ₂ O	99%	7732-18-5
Isobutanol	1%	78-83-1

SECTION 4 FIRST-AID MEASURES

Skin contact	Wash off immediately with soap and plenty of water.
Eye contact	Rinse immediately with plenty of water. Consult a physician.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Notes to physician	Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Suitable: Water spray, alcohol-resistant foam, dry chemical, carbon dioxide.

For small fires, use media such as "alcohol" foam, dry chemical or carbon dioxide.

For large fires, apply water from as far as possible. Use large quantities of water applied as a mist or spray. Solid streams of water may be ineffective. Cool affected containers with flooding quantities of water.

5.2 Special precautions for fire-fighters

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

5.3 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Person-related safety precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

6.2 Measures for environmental protection

Prevent further leakage or spillage if safe to do so. Do not let enter drains. Discharge into the environment must be avoided.

6.3 Measures for containment and cleaning

Contain spillage, and then collect with non-combustible absorbent material (eg. sand, diatomaceous earth, vermiculite). Place in a container for disposal according to local regulations. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

SECTION 7 HANDLING AND STORAGE

7.1 Handling

- Wear appropriate protective clothing and safety gloves.
- Avoid inhalation.
- Avoid contact with eyes, skin and clothing.
- Mechanical exhaust required.
- Keep away from ignition sources, heat and flame.
- No smoking at working site.
- Incompatibilities: Strong oxidizing agents, Strong acids. Handling and unloading should be light, to prevent packaging broken, damp and cause losses.
- Working place should be equipped with appropriate varieties and quantities of firefighting equipment and leakage emergency treatment equipment.

7.2 Storage

Store according to product specifications.

SECTION 8 EXPOSURE CONTROL/PPE

8.1 Engineering Controls

Mechanical exhaust required. Safety shower and eye bath.

8.2 Personal Protective Equipment

- Respiratory: Government approved respirator if needed.
- Eye/face: Chemical safety goggles if needed.
- Clothing: Wear appropriate protective clothing.
- Hand/skin: Protective 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.
- Body protection: Wear suitable protective clothing according to the concentration and amount of the substance at the workplace.

8.3 Other Protect

No smoking, drinking and eating at working site. Wash thoroughly after handling.

SECTION 9 PHYSICAL/CHEMICAL PROPERTIES

Important Health Safety and Environment Information

a) Appearance Form:	Aqueous solution
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidizing properties	no data available

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agent, strong acids/alkalis
metals, Strong reducing agents, Amines, Mercaptans.

10.6 Hazardous decomposition products

Other decomposition products: No data available

Hazardous decomposition products formed under fire conditions: Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen chloride gas.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity

No data available

Principle Routes of Exposure/Potential Health effects

Eye irritant effect	no data available
Skin irritant effect	no data available
Sensitization	no data available
Mutagenicity	no data available
Germ cell mutagenicity	no data available
Reproductive toxicity	no data available
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP, OSHA.
Additional toxicological information	no data available

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Mobility

No data available

Bioaccumulative potential

No data available

Bioaccumulation

No data available

SECTION 13 DISPOSAL CONSIDERATION

13.1 Disposal methods

Dispose of waste in accordance to applicable national, regional, or local regulations. Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

13.2 Contaminated packaging

Dispose in the same manner as unused product.

SECTION 14 TRANSPORT INFORMATION

RID/ADR: Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport

IATA: Non-Hazardous for Air Transport.

IMO: Non-Hazardous for Sea Transport.

SECTION 15 REGULATORY INFORMATION

This material safety data sheet complies with the requirements of REACH Regulation 1907/2006 AND Regulation (CLP) No. 1272/2008 and their amendments.

SECTION 16 OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. 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 investigation to determine the suitability of the information for their particular purposes. In no way shall we 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 from using the above information.