

SAFETY DATA SHEET

Exosome/EV Isolation Kit

This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with the material, as well as describing potential risks to the user and the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material. This Safety Data Sheet is prepared in accordance with formatting described in the REACH Regulation (EC) No 1907/2006 and described in CLP Regulation (EC) No 1272/2008.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifiers

Product Name: **Exosome/EV Isolation Kit**

1.2 Relevant identified uses of the substance or mixture and uses advised against

For R&D, Industrial, Professional & in vitro diagnostic (IVD) use only

1.3 Details of the supplier of the safety data sheet

Shanghai Upper Bio-tech Co., Ltd.
Rooms 201 and 213, Block A and Rooms 301-338, Block B, Building 3, No. 526, Ruiqing Road, East Zhangjiang
Hi-tech Industry District, Shanghai City, P.R. China

1.4 Emergency telephone number

Tel: +86-21-50720808

1.5 For technical queries:

E-mail: general@upperbiotech.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with the Classification Labelling and Packaging (CLP) Regulation EC 1272/2008

2.1.1 Size Exclusion Chromatography Column:

Skin Sens. 1.; H317: May cause an allergic skin reaction

The only hazards identified with this product are those associated with 2-Methyl-4-isothiazolin-3-one, which is present at very low concentration < 0.05% w/v

2.1.2 Equilibration buffer:

Physical, Health and Environmental Hazards: Not hazardous

2.1.3 Elution buffer:

Physical, Health and Environmental Hazards: Not hazardous

2.2 Label elements

2.2.1 Size Exclusion Chromatography Column:

Pictogram



Signal word

Warning

Hazard statement(s)

H317

May cause an allergic skin reaction

Precautionary statement(s)

Prevention

P261

Avoid breathing dust/fume/gas/mist/vapours/spray

P262

Do not get in eyes, on skin, or on clothing

P264

Wash skin thoroughly after handling

P270

Do not eat, drink or smoke when using this product

P272

Contaminated work clothing should not be allowed out of the workplace

P280

Wear protective gloves/ protective clothing

Response

P304 + P340

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER/doctor

P302 + P352

IF ON SKIN: Wash with plenty of water

P312

Call a POISON CENTER/doctor if you feel unwell

P322	Specific measures (see supplemental first aid instructions)
P362 + P364	Take off contaminated clothing and wash before reuse
Disposal	
P501	Dispose of contents/ container to an approved waste disposal plant.

2.2.2 Equilibration buffer:

NOT considered hazardous.

Hazard Pictograms, Single Word, Hazard Statements, EU Specific Hazard Statements and Precautionary Statements: Not applicable

2.2.3 Elution buffer:

NOT considered hazardous.

Hazard Pictograms, Single Word, Hazard Statements, EU Specific Hazard Statements and Precautionary Statements: Not applicable

2.3 Other hazards

Size Exclusion Chromatography Column:

This contains no substances identified as PBT or vPvB at $\geq 0.1\%$.

Equilibration buffer and Elution buffer:

PBT/vPvB assessment has not been conducted, as this mixture is not classified as hazardous and is therefore not subject to a Chemical Safety Assessment (CSA).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

3.1.1 Size Exclusion Chromatography Column

Name	EC or CAS		Concentration(%)	Classification
2-Methyl-2H-isothiazol-3-one	EC No: CAS No:	220-239-6 2682-20-4	<0.05%	Aquatic Acute 1; Skin Corr. 1B; Acute Tox. 3; Eye Dam. 1; Aquatic Chronic 1; Acute Tox. 2; Skin Sens. 1A; H400, H314, H301, H311, H318, H410, H330, H317 Classification applies to pure substance, not the mixture
Agarose gel	/	/	50-70	Not Hazardous
Disodium Phosphate Dodecahydrate	EC No: CAS No:	231-448-7 10039-32-4	0.2	Not Hazardous

Sodium Dihydrogen Phosphate Dihydrate	EC No: CAS No:	231-449-2 13472-35-0	0.2	Not Hazardous
Water			Remainder	Not Hazardous

3.1.2 Equilibration buffer: No Hazardous ingredients

3.1.3 Elution buffer: No Hazardous ingredients

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice

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

If inhaled

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

In case of skin contact

Wash off with soap and generous amounts of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

If swallowed may produce nausea, headaches and vomiting. Prolonged skin contact may cause redness and irritation. Eye contact may cause severe irritation.

4.3 Indication of any immediate medical attention

There are no additional recommendations.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media: None

5.2 Special hazards arising from the substance or mixture

None.

5.3 Advice for fire fighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see Section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Soak up with absorbent inert material and dispose of and keep in suitable containers for disposal.

6.4 References to other sections

For disposal see Section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Wash hands and other exposed areas with soft soap and water before eating, drinking, smoking and leaving work.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end uses

Apart from the uses mentioned in Section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal Protective Equipment

Respiratory protection

None required if used in a laboratory with an adequate air exchange HVAC.

Skin/Hand 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.

Eye/Face protection

Chemical safety glasses or goggles.

Body protection

Protective work clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

	Size Exclusion Chromatography Column	Equilibration buffer	Elution buffer
Appearance	Viscous, opaque and clear liquid	Clear and transparent liquid	Clear and transparent liquid
Odour	Odourless	Odourless	Odourless
pH	6.5 ± 0.2	6.5 ± 0.2	7.2 ± 0.2
Vapour pressure	No data	No data	No data
Viscosity	No data	No data	No data
Boiling point	No data	No data	No data
Volatile materials	No data	No data	No data
Freezing / melting point	No data	No data	No data
Solubility	Soluble in water	Soluble in water	Soluble in water
Specific gravity / density	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1
Flash point	Non-flammable	Non-flammable	Non-flammable
Danger of explosion	No data	No data	No data
Auto-ignition temperature	No data	No data	No data
Upper & lower flammable limits	No data	No data	No data
Corrosiveness	Non-corrosive	Non-corrosive	Non-corrosive

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

Avoid excessive heat and direct sunlight.

10.5 Incompatible materials

For Size Exclusion Chromatography Columns containing 2-Methyl-2H-isothiazol-3-one avoid strong oxidizing agents and strong acids.

10.6 Hazardous decomposition products

None known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Summary

IF SWALLOWED: large quantities may cause vomiting, diarrhoea, dehydration and congestion.
Hypertonic salts (e.g., this mixture) can cause inflammation of the gastrointestinal tract.

Acute	Oral	Using LD50s for ingredients, the calculated LD50 (oral, rat) for the mixture is >5,000 mg/kg.
	Inhaled	This mixture may cause irritation. No data available.
	Eye	This mixture may cause irritation. No data available.
	Skin	This mixture may cause irritation. No data available.
Chronic	Sensitisation	May cause an allergic skin reaction. No data available.
	Mutagenicity	No ingredient present at concentrations >0.1% is considered mutagenic.
	Carcinogenicity	No ingredient above reportable quantities listed as carcinogenic.
	Reproductive / developmental systemic	No data available.
	Aggravation of existing conditions	None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

The environmental impact of this product has not been fully investigated. Contains a substance which is harmful to the aquatic environment with long lasting effects at very low concentrations.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Not applicable.

12.6 Other adverse effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Dispose of waste in accordance to applicable national, regional, or local regulations.

Contaminated packaging

Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number

ADR/RID: Not applicable

IMDG: Not applicable

IATA: Not applicable

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: Not applicable

IMDG: Not applicable

IATA: Not applicable

14.4 Packing Group

ADR/RID: Not applicable

IMDG: Not applicable

IATA: Not applicable

14.5 Environmental Hazards

ADR/RID: No

IMDG: Marine pollutant: No

IATA: No

14.6 Special Precautions for User

None. Transport the product in closed containers. Avoid excessive heat and direct sunlight.

SECTION 15: REGULATORY INFORMATION

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

No component of this product requires authorization or restriction under REACH (Regulation (EC) No. 1907/2006), Annex XIV or Annex XVII.

All ingredients used in this product are listed or exempted from listing on major international chemical inventories, including:

EINECS/ELINCS (EU)

TSCA (United States)

DSL/NDSL (Canada)

AICS (Australia)

ENCS/ISHL (Japan)

KECI (Korea)

PICCS (Philippines)

NZIoC (New Zealand)

15.2 Chemical Safety Assessment

Not applicable.

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SECTION 16: OTHER INFORMATION

16.1 List of abbreviations and acronyms used in this SDS:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging Regulation (EC) no 1272/2008 DSD (Dangerous Substances Directive) 67/548/EEC
EC	European Community/Commission
EEC	European Economic Community
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) no 1907/2006
SDS	Safety Data Sheet
vPvB	very Persistent, very Bioaccumulative

16.2 Training requirements for workers:

Those handling this material need to be fully aware of potential biological effects and symptoms of over-exposure.

16.3 Disclaimers

The above information is believed to be correct, based on the present state of our knowledge, but does not purport to be all inclusive and therefore shall be used only as a guide. This information is applicable to the product with regard to appropriate safety precautions. This SDS has been compiled and is solely intended for this product. It does not represent any guarantee of the properties of the product. Upper Biotech shall not be held liable for any damage resulting from handling or from contact with the above product.

16.4 Full text of H-statements referred in section 3

H301	Toxic if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects