

MATERIAL SAFETY DATA SHEET

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This information is based on technical information believed to be reliable and will be revised as new knowledge or experience is gained.

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Version 03

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1. IDENTIFICATION**A. Product name**

- CELLiST™ Basal Media (BASAL3)

B. Recommended use and restriction on use

- General use : Cell culture medium
- Restriction on use : Don't use this for other use

C. Manufacturer / Supplier / Distributor information

- Company name : AJINOMOTO GENEXINE CO., LTD.
- Address : 105, Jisikgiban-ro, Yeonsu-gu, Incheon 21991, KOREA
- Dept. : Business Administration Dept.
- Telephone number : +81-32-210-2600
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- E-mail address : sales@ajinomotogenexine.com

2. HAZARD IDENTIFICATION**A. GHS Classification**

- Skin corrosion/irritation : Category2
- Serious eye damage/irritation : Category1
- Germ cell mutagenicity : Category1B
- Reproductive toxicity : Category2
- Specific target organ toxicity(Repeated exposure) : Category2
- Acute aquatic toxicity : Category2

B. GHS label elements

○ Hazard symbols



○ Signal words

- Danger

○ Hazard statements

- H315 Causes skin irritation
- H318 Causes serious eye damage
- H340 May cause genetic defects
- H361 Suspected of damaging fertility or the unborn child
- H373 May cause damage to organs through prolonged or repeated exposure (Refer Section SDS 11)
- H401 Toxic to aquatic organisms.

○ Precautionary statements

1) Prevention

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dust/fume.
- P264 Wash hands thoroughly after handling.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

2) Response

- 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.
- P308+P313 If exposed or concerned: Get medical advice/attention.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P314 Get medical advice/attention if you feel unwell.
- P321 Specific treatment
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P362 Take off contaminated clothing and wash before reuse.

3) Storage

- P405 Store locked up.

4) Disposal

- P501 Dispose of contents/container in accordance with local/regional/national/international regulation

C. Other hazards which do not result in classification : (NFPA Classification)

- Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Content(%)
Inorganic salts	20~21%
Sugars	37~38%
Amino Acids	33~34%
Vitamins	1~2%
Others	7~8%

Hazardous components

Chemical Name	Trade names and Synonyms	CAS No.	Content(%)	Related hazard
Sodium phosphate monobasic	Phosphoric acid, sodium salt (1:1) ; Phosphoric acid, monosodium salt ;	7558-80-7	3~4%	H315, H318
Sodium chloride	Common salt ; Halite ;	7647-14-5	11~12%	H340, H361, H373
Sodium selenite	-	10102-18-8	< 0.0001%	-

4. FIRST AID MEASURES**A. Eye contact**

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.
- Get medical attention immediately.
- Remove contact lenses if worn.

B. Skin contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Wash contaminated clothing thoroughly before re-using.
- Get medical attention immediately.
- Go to the hospital immediately if symptoms(flare, irritate) occur.
- Remove contaminated clothing, shoes and isolate.
- Wash thoroughly after handling.
- Wear gloves when washing the patient, and please avoid contact with contaminated clothing.

C. Inhalation contact

- When exposed to large amounts of steam and mist, move to fresh air.
- Take specific treatment if needed.
- Get medical attention immediately.
- If breathing is stopped or irregular, give artificial respiration and supply oxygen.

D. Ingestion contact

- Please be advised by doctor whether induction of vomit is demanded or not.

- Rinse your mouth with water immediately.
- Get medical attention immediately.

E. Delayed and immediate effects and also chronic effects from short and long term exposure

- Not applicable

F. Notes to physician

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.
- If exposed or concerned, get medical attention/advice.

5. FIREFIGHTING MEASURES**A. Suitable (Unsuitable) extinguishing media**

- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray
- Avoid use of water jet for extinguishing

B. Specific hazards arising from the chemical

- Not applicable

C. Special protective actions for firefighters

- Move containers from fire area, if you can do without the risk.
- Cool containers with water until well after fire is out.
- Do not approach the tank surrounded by fire until it is extinguished.
- Wear appropriate protective equipment.
- Keep containers cool with water spray.
- Fine powder may cause ignition.

6. ACCIDENTAL RELEASE MEASURES**A. Personal precautions, protective equipment and emergency procedures**

- Ventilate closed spaces before entering.
- Must work against the wind, let the upwind people to evacuate.
- Remove all sources of ignition.
- Avoid dust formation.
- Moist with water to prevent dust scattering.
- Avoid skin contact and inhalation.
- Keep unauthorized people away, isolate hazard area and deny entry.

B. Environmental precautions

- Prevent runoff and contact with waterways, drains or sewers.
- If large amounts have been spilled, inform the relevant authorities.

C. Methods and materials for containment and cleaning up

- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notification to central government, local government. When emissions at least of the standard amount
- Dispose of waste in accordance with local regulation.
- Appropriate container for disposal of spilled material collected.
- Dust spills : Cover dust spills with plastic sheet or waterproof cloth to minimize spreading and avoid contact with water.
- Small liquid state spills: Appropriate container for disposal of spilled material collected.
- For disposal of spilled material in appropriate containers collected and clear surface.
- Spilled material should be treated as a potential risk of waste collected.

7. HANDLING AND STORAGE**A. Precautions for safe handling**

- Wash thoroughly after handling.
- Comply with all applicable laws and regulations for handling
- Get the manual before use.
- Dealing only with a well-ventilated place.
- Minimize occurrence of dust and accumulation.

- Contaminated work clothing should not be allowed out of the workplace.

B. Conditions for safe storage, including any incompatibilities

- Do not apply direct heat.
- Keep in the original container.
- Please pay attention to incompatibilities materials and conditions to avoid.
- Keep sealed when not in use.
- Prevent static electricity and keep away from combustible materials or heat sources.
- Collected them in sealed containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A. Exposure limits

- ACGIH TLV
 - Not applicable
- OSHA PEL
 - [Sodium selenite]: 0.2mg/m³

B. Engineering controls

- Business owner is recommended to maintain below recommended exposure limits for the working place with general exhaust of gas/vapour/mist/fume.

C. Individual protection measures, such as personal protective equipment

- **Respiratory protection**
 - Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.
 - Respiratory protection is ranked in order from minimum to maximum.
 - Consider warning properties before use.
 - Dust, mist, fume-purifying respiratory protection
 - Any air-purifying respirator with a corpuscle filter of high efficiency
 - Any respiratory protection with a electromotion fan(for dust, mist, fume-purifying)
 - Self-contained breathing apparatus with a corpuscle filter of high efficiency
 - For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.
- **Eye protection**
 - Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
 - Provide an emergency eye wash station and quick drench shower in the immediate work area.
- **Hand protection**
 - Wear appropriate glove.
- **Skin protection**
 - Wear appropriate clothing.
- **Others**
 - Not applicable

9. PHYSICAL AND CHEMICAL PROPERTIES

A. Appearance	
- Appearance	Solid(Powder)
- Color	Not available
B. Odor	odorless
C. Odor threshold	Not available
D. pH	Not available
E. Melting point/Freezing point	Not available
F. Initial Boiling Point/Boiling Ranges	Not available
G. Flash point	Not available
H. Evaporation rate	Not applicable
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	Not available
K. Vapour pressure	Not applicable
L. Solubility	Not available

M. Vapour density	Not applicable
N. Specific gravity(Relative density)	Not available
O. Partition coefficient of n-octanol/water	Not available
P. Autoignition temperature	Not available
Q. Decomposition temperature	Not available
R. Viscosity	Not available
S. Molecular weight	Not available

10. STABILITY AND REACTIVITY

A. Chemical Stability

- This material is stable under recommended storage and handling conditions.

B. Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

C. Conditions to avoid

- Avoid contact with incompatible materials and condition.
- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces

D. Incompatible materials

- Not applicable

E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. TOXICOLOGICAL INFORMATION

A. Information on the likely routes of exposure

- (Respiratory tracts)
 - Not applicable
- (Oral)
 - Not available
- (Eye·Skin)
 - Causes serious eye damage
 - Causes skin irritation

B. Delayed and immediate effects and also chronic effects from short and long term exposure

- Acute toxicity
 - Not applicable
- Skin corrosion/irritation
 - Causes skin irritation
- Serious eye damage/irritation
 - Causes serious eye damage
- Respiratory sensitization
 - Not applicable
- Skin sensitization
 - Not applicable
- Carcinogenicity
 - Not applicable
- Germ cell mutagenicity
 - May cause genetic defects
- Reproductive toxicity
 - Suspected of damaging fertility or the unborn child
- STOT-single exposure
 - Not applicable
- STOT-repeated exposure
 - May cause damage to organs through prolonged or repeated exposure
- Aspiration hazard
 - Not applicable

12. ECOLOGICAL INFORMATION**A. Ecotoxicity**

- Not applicable

B. Persistence and degradability

- Not applicable

C. Bioaccumulative potential

- Not applicable

D. Mobility in soil

- Not applicable

E. Other adverse effects

- Not applicable

13. DISPOSAL CONSIDERATIONS**A. Disposal methods**

- Stabilization and minimization treatment by incineration or similar method can be applied, if more than two kinds of designated wastes are in mixture state and it is impractical to separate them
- Oil water separation technology shall be applied as pre-waste treatment if it is applicable
- It shall be treated by incineration

B. Special precautions for disposal

- Anyone with business license number who generates industrial wastes shall treat the waste by him/herself or by entrusting to the legal entities who treat the wastes, recycle the wastes of others or install and operate the waste treatment facilities according to the Wastes Control Act
- Dispose of waste in accordance with all applicable laws and regulations.

14. TRANSPORT INFORMATION**A. UN No. (IMDG CODE/IATA DGR)**

- Not applicable

B. Proper shipping name

- Not applicable

C. Hazard Class

- Not applicable

D. IMDG CODE/IATA DGR Packing group

- Not applicable

E. Marine pollutant

- Not applicable

F. Special precautions for user related to transport or transportation measures

- Local transport follows in accordance with Dangerous goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- EmS FIRE SCHEDULE : Not available
- EmS SPILLAGE SCHEDULE : Not available
- Air transport(IATA): Not subject to IATA regulations.

15. REGULATORY INFORMATION**A. National and/or international regulatory information**

- POPs Management Law
 - Not applicable
- Information of EU Classification
 - * Classification
 - [Calcium Chloride] : H319

- [Sodium selenite] : H300, H331, H317, H411,
- U.S. Federal regulations
 - * OSHA PROCESS SAFETY (29CFR1910.119)
 - Not applicable
 - * CERCLA Section 103 (40CFR302.4)
 - [Disodium hydrogenorthophosphate] : 2267.995 kg 5000 lb
 - [Sodium selenite] : 45.3599 kg 100 lb
 - * EPCRA Section 302 (40CFR355.30)
 - [Sodium selenite] : 45.3599/4535.99 kg 100/10000 lb
 - * EPCRA Section 304 (40CFR355.40)
 - [Sodium selenite] : 45.3599 kg 100 lb
 - * EPCRA Section 313 (40CFR372.65)
 - [Sodium selenite] : Applicable
- Rotterdam Convention listed ingredients
 - Not applicable
- Stockholm Convention listed ingredients
 - Not applicable
- Montreal Protocol listed ingredients
 - Not applicable

16. OTHER INFORMATION

A. Reference

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.
- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, ESIS, NLM, SIDS, IPCS

B. Issue date

- 2018-08-03

C. Revision number and Last date revised

- V3, 2020-03-02

D. Other

- This SDS is prepared according to the Globally Harmonized System (GHS).