

## SAFETY DATA SHEET

according to Work Health and Safety Regulations 2011

### NHBE-Bronchial Epi w/o RA, BEGM, amp

Version 3.0

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## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NHBE-Bronchial Epi w/o RA, BEGM, amp

Material number : CC-2541

### Manufacturer or supplier's details

Company : Capsugel Australia Pty Ltd.  
Suite 610, 12 Century Circuit,  
Norwest NSW 2153  
Australia

Lonza Ltd  
Muenchensteinerstrasse 38  
CH-4002 Basel  
Switzerland

Telephone : Tel +61 3 9550 0883

Telefax : Tel +61 3 9550 0890

E-mail address : sds@lonza.com

Emergency telephone number : +41 61 313 94 94 (24h)

### Recommended use of the chemical and restrictions on use

Recommended use : For research use only.

Restrictions on use : NOT FOR USE IN GMP MANUFACTURING, NOR HUMAN OR ANIMAL IN VIVO OR DIAGNOSTIC USE.

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Not a hazardous substance or mixture.

### GHS label elements

Not a hazardous substance or mixture.

### Other hazards which do not result in classification

No information available.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Substances with a workplace exposure limit		
Dimethyl sulfoxide	67-68-5	

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### SECTION 4. FIRST AID MEASURES

If inhaled	: No special precautions required.  Move to fresh air. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact	: Wash with water and soap as a precaution. If skin irritation persists, call a physician.  Wash with water and soap as a precaution. If on clothes, remove clothes. In the case of skin irritation or allergic reactions see a physician.
In case of eye contact	: Immediately flush eye(s) with plenty of water. If eye irritation persists, consult a specialist.  Flush eyes with water as a precaution. Remove contact lenses. Keep eye wide open while rinsing. Protect unharmed eye. If eye irritation persists, consult a specialist.
If swallowed	: Immediately give large quantities of water to drink. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.  Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.
Most important symptoms and effects, both acute and delayed	: No information available. No information available.
Notes to physician	: No information available.  Treat symptomatically.

### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Water spray Dry powder Foam  Water spray Alcohol-resistant foam Dry chemical
Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Heating or fire can release toxic gas.

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Hazardous combustion products	: Sodium oxides Hydrogen chloride (HCl) Carbon oxides (COx) Sulphur oxides (SOx)
Specific extinguishing methods	: Use water spray to cool unopened containers.  Use a water spray to cool fully closed containers.
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus.  In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Use personal protective equipment.
Environmental precautions	: Prevent product from entering drains.  Try to prevent the material from entering drains or water courses.
Methods and materials for containment and cleaning up	: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).  Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

## SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: Take precautionary measures against static discharges.  Normal measures for preventive fire protection.
Advice on safe handling	: No special precautions required.  No special precautions required. For personal protection see section 8.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice.  Handle in accordance with good industrial hygiene and safety practice.
Conditions for safe storage	: No special storage conditions required.  Keep container tightly closed.

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Keep in a well-ventilated place.

To maintain product quality, do not store in heat or direct sunlight.

Materials to avoid : No special restrictions on storage with other products.

Further information on storage stability : No decomposition if stored and applied as directed.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Dimethyl sulfoxide	67-68-5	TWA	250 ppm	US WEEL

**Engineering measures** : Avoid splashes.

Use only in area provided with appropriate exhaust ventilation.

### Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

No personal respiratory protective equipment normally required.  
In the case of vapour formation use a respirator with an approved filter.

Hand protection

Material : Nitrile rubber  
Rate of permeability : > 480 min

Remarks : Wear protective gloves. Break through time : > 480 min

Eye protection : Tightly fitting safety goggles  
Safety glasses

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.  
No special protective equipment required.  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.  
Lightweight protective clothing

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Aqueous solution

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Colour	: No data available
Odour	: No data available
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: does not flash
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Flammability (liquids)	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: No data available
Water solubility	: soluble
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available

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## SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable under recommended storage conditions. No decomposition if stored and applied as directed.
Chemical stability	: Stable under normal conditions. Stable under recommended storage conditions.
Possibility of hazardous reactions	: Stable under normal conditions.

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Stable under recommended storage conditions.  
No hazards to be specially mentioned.

Conditions to avoid : No data available

Heat

Incompatible materials : Strong oxidizing agents

Oxidizing agents  
Strong acids and strong bases

Hazardous decomposition products : No data available

No decomposition if used as directed.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

### Skin corrosion/irritation

Remarks : No data available

### Serious eye damage/eye irritation

Remarks : No data available

### Respiratory or skin sensitisation

Remarks : No data available

### Germ cell mutagenicity

Genotoxicity in vitro : Remarks: No data available

### Carcinogenicity

Remarks : No data available

### Reproductive toxicity

Effects on fertility : Remarks: No data available

### STOT - single exposure

Remarks : No data available

### STOT - repeated exposure

Remarks : No data available

### Aspiration toxicity

No aspiration toxicity classification

### Further information

## NHBE-Bronchial Epi w/o RA, BEGM, amp

Remarks : No data is available on the product itself.

Remarks : No data available

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Toxicity to fish :  
Remarks: No data available

### Persistence and degradability

Biodegradability : Result: no data available

### Bioaccumulative potential

Bioaccumulation : Remarks: No data available

### Mobility in soil

Distribution among environmental compartments : Remarks: No data available

### Other adverse effects

Additional ecological information : No data available  
No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Dispose of in accordance with local regulations.  
Dispose of contents/container in accordance with local regulation.  
Contact waste disposal services.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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### SECTION 14. TRANSPORT INFORMATION

**IATA** Not dangerous goods

**UN number** : Not applicable  
**Proper shipping name** : Not applicable  
**Transport hazard class** : Not applicable  
**Packing group** : Not applicable

**IMDG** Not dangerous goods

**UN number** : Not applicable  
**Proper shipping name** : Not applicable  
**Transport hazard class(es)** : Not applicable  
**Packing group** : Not applicable  
**Environmental hazards** : Marine pollutant: no

**ADR** : Not dangerous goods

**UN number** : Not applicable  
**Proper shipping name** : Not applicable  
**Transport hazard class** : Not applicable  
**Packing group** : Not applicable  
**Environmental hazards** : no

**RID** : Not dangerous goods

**UN number** : Not applicable  
**Proper shipping name** : Not applicable  
**Transport hazard class** : Not applicable  
**Packing group** : Not applicable  
**Environmental hazards** : no

**Special precautions for user** : none

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not applicable

### SECTION 15. REGULATORY INFORMATION

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

**Therapeutic Goods (Poisons Standard) Instrument**

Not applicable

### SECTION 16. OTHER INFORMATION

**Revision Date** : 24.04.2024

**Date format** : dd.mm.yyyy

**Full text of other abbreviations**



## NHBE-Bronchial Epi w/o RA, BEGM, amp

US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)

US WEEL / TWA : 8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

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