



MATERIAL SAFETY DATA SHEET

Revision Date : 2017-01-01

1. IDENTIFICATION OF THE SUBSTANCE/TREPARATION AND THE COMPANY/UNDERTAKING

Product name:

Formoterol fumarate

Supplier:

BINBO BIOLOGICAL CO.,LTD
FENGCHENG ONE ROAD
Xi'an
China

Tel:

+86-13488214511

2.COMPOSITION/INFORMATION ON INGREDIENTS

Components	ACGIH Exposure Limits:	OSHA Exposure Limits:
Formoterol fumarate	None	None

3.HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: May cause skin irritation and/or dermatitis

Principle routes of exposure:

Skin

Inhalation:

May cause irritation of respiratory tract

Ingestion:

May be harmful if swallowed

Skin contact:

May cause allergic skin reaction

Eye contact:

Avoid contact with eyes

Statements of hazard MAY CAUSE ALLERGIC SKIN REACTION.

Statements of Spill of Leak Label Eliminate all ignition sources. Absorb and/or contain spill with inert materials (e.g., sand, vermiculite). Then place in appropriate container. For large spills, use water spray to disperse vapors, flush spill area. Prevent runoff from entering waterways or sewers.

4. FIRST AID MEASURES



General advice:	In the case of accident or if you fell unwell, seek medical advice immediately (show the label where possible). Move to fresh air, call a physician immediately.
Inhalation:	Rinse immediately with plenty of water and seek medical advice. Do not induce vomiting without medical advice.
Skin contact:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Ingestion:	No information available
Eye contact:	No information available
Protection of first – aiders:	
Medical conditions aggravated by exposure:	None known

5.FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Use dry chemical, CO2, water spray or “alcohol” foam
Specific hazards:	Burning produces irritant fumes.
Special protective equipment for firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
Flash point:	Not determined
Autoignition temperature:	Not determined
NFPA rating	Not determined
NFPA Health:	1
NFPA Flammability:	1
NFPA Reactivity:	0

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Use personal protective equipment.
Environmental precautions:	Prevent product from entering drains.
Methods for cleaning up:	Sweep up and shovel into suitable containers for disposal

7. HANDLING AND STORAGE



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Storage:

Room temperature

Handling:

Use only in area provided with appropriate exhaust ventilation.

Safe handling advice:

Wear personal protective equipment.

Incompatible products:

Oxidising and spontaneously flammable products

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures:

Ensure adequate ventilation.

Respiratory protection:

Breathing apparatus only if aerosol or dust is formed.

Skin and body protection:

Usual safety precautions while handling the product will provide adequate protection against this potential effect.

Safety glasses with side-shields

Eye protection:

PVC or other plastic material gloves

Hand protection:

Handle in accordance with good industrial hygiene and safety practice.

Hygiene measures:

9. PHYSICAL AND CHEMICAL PROPERTIES

Melting point/range:

No Data available at this time.

Boiling point/range:

No Data available at this time.

Density:

No data available

Vapor pressure:

No data available

Evaporation rate:

No data available

Vapor density:

No data available

Solubility (in water):

No data available

Flash point:

Not determined

Autoignition temperature:

Not determined

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Polymerization: None under normal processing.

Hazardous decomposition products: Thermal decomposition can lead to release of irritating gases and vapours such as carbon oxides.



Materials to avoid: Strong oxidising agents.

Conditions to avoid: Exposure to air or moisture over prolonged periods.

11. TOXICOLOGICAL INFORMATION

Product information

Acute toxicity

Components	RTECS Number:	Selected LD50s and LC50s
Formoterol fumarate	Not Available	Not Determined

Chronic toxicity:

Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.

Local effects:

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Specific effects:

May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache.

Primary irritation:

No data is available on the product itself.

Carcinogenic effects:

No data is available on the product itself.

Mutagenic effects:

No data is available on the product itself.

Reproductive toxicity:

No data is available on the product itself.

12. ECOLOGICAL INFORMATION

Mobility:

No data available

Bioaccumulation:

No data available

Ecotoxicity effects:

No data available

Aquatic toxicity:

May cause long-term adverse effects in the aquatic environment.

Components	U.S. DOT –Appendix B – Marine Pollutants	U.S. DOT –Appendix B – Severe Marine Pollutants	United Kingdom – The red List:
Formoterol fumarate	Not Listed	Not Listed	Not Listed



Components	Germany VCI (WGK)	World Health Organization (WHO) – Drinking Water	Ecotoxicity – Fish Species Data
Formoterol fumarate	Not Listed	Not Listed	Not Listed

Components	Ecotoxicity – Freshwater Algae Data	Ecotoxicity – Microtox Data	Ecotoxicity – Water Flea Data
Formoterol fumarate	Not Listed	Not Listed	Not Listed

Components	EPA – ATSDR Priority List	EPA – HPV Challenge Program Chemical List	California – Priority Toxic Pollutants
Formoterol fumarate	Not Listed	Not Listed	Not Listed

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products:

Waste disposal must be in accordance with appropriate Federal, State and local regulations. This product, if unaltered by use, may be disposed of treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

Contaminated packaging:

Do not re-use empty containers.

14. TRANSPORT INFORMATION

UN/Id No: Not regulated

DOT

Proper shipping name: Not Regulated

TGD(Canada)

WHMIS hazard class: Non - controlled

IMDG/IMO

IMDG – Hazard Classifications Not Applicable



Components	U.S. DOT –Appendix A Table 1 – Reportable Quantities
Formoterol fumarate	Not Listed

Components	U.S. DOT –Appendix B – Marine Pollutants	U.S. DOT –Appendix B – Severe Marine Pollutants
Formoterol fumarate	Not Listed	Not Listed

IMO – labels:

15. REGULATORY INFORMATION

International Inventories

Components	Inventory – United States TSCA – Sect.8(b)	Canada DSL Inventory List -
Formoterol fumarate	Not Listed	Not Listed

U.S. regulations:

Components	California proposition 65 -	Massachusetts Right to Know List:	New Jersey Right to Know List:	Pennsylvania Right to Know List:
Formoterol fumarate	NA	Not Listed	Not listed	Not listed

Components	Florida substance List:	Rhode Island Right to Know List:	Illinois – Toxic Air Contaminants	Connecticut – Hazardous Air
Formoterol fumarate	Not Listed	Not Listed	Not listed	Not listed

Components	SSARA 313 Emission reporting/Toxic Release of Chemicals	CERCLA/SARA – Section 302 Extremely Haz	NTP:	IARC:
Formoterol fumarate		Not Listed	Not listed	Not listed



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16. OTHER INFORMATION

Prepared by: Health & Safety

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End of safety data sheet