


MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF PRODUCT AND COMPANY

Pfizer Inc	Emergency telephone	1-866-531-8896
Pfizer Animal Health	Hours of operation	24 Hours
235 East 42nd Street	Telephone	1-800-366-5288
New York, NY 10017		

Trade names	LitterGuard®; LitterGuard®LT
Product name	<i>Escherichia Coli</i> Bacterin
Therapeutic use	Veterinary Vaccine
Description	Liquid solution

SECTION 2 - COMPOSITION

<u>Ingredient</u>	<u>CAS Number</u>	<u>Amount</u>
Aluminum hydroxide	21645-51-2	Proprietary
<i>Escherichia coli</i>	Not assigned	Proprietary
Formaldehyde*	50-00-0	0.1 - 1.0%
Merthiolate (as mercury)*	54-64-8	Trace
Water, purified	7732-18-5	90%

*Hazardous

Note: Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety.

SECTION 3 - HAZARDS IDENTIFICATION

Signal word	WARNING!
Statements of hazard	CONTAINS FORMALDEHYDE: POTENTIAL CANCER HAZARD
	MAY CAUSE SENSITIZATION OF THE SKIN AND RESPIRATORY SYSTEM
	MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION
Eye effects	May cause eye irritation.
Skin effects	May cause skin irritation. May cause allergic reaction.
Inhalation effects	An Occupational Exposure Limit has been established for one or more of the ingredients (see Section 8). See 'Statements of hazard' and/or 'Other potential health effects' in this section.

SECTION 3 - HAZARDS IDENTIFICATION ... continued

Ingestion effects	None known
Other potential health effects	In the event of accidental injection, an allergic reaction may occur. If an allergic reaction occurs, the worker should be removed to the nearest emergency room and the appropriate therapy instituted.
Route of entry	Skin contact, inhalation, accidental injection
NOTE:	This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warnings included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

SECTION 4 - FIRST AID MEASURES

Skin	Wash skin with soap and water. If irritation occurs or persists, get medical attention.
Eyes	Immediately flush eyes with water for at least 15 minutes. If irritation occurs or persists, get medical attention.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.
Ingestion	Get medical attention. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

General hazard	This product is a nonflammable aqueous solution. This material is not expected to support combustion.
Fire fighting instructions	Dike and collect water used to fight fire.
Extinguishing media	As for primary cause of fire.
Flash point	Non-flammable
Hazardous combustion products	Not known

SECTION 6 - ACCIDENTAL RELEASE MEASURES

General	Review Sections 3, 8 and 12 before proceeding with clean up.
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SECTION 6 - ACCIDENTAL RELEASE MEASURES ... continued

Small spill	Contain the source of the spill or leak. Use non-combustible absorbent material to wipe up spill and place in a sealed container for disposal. Clean spill area thoroughly. Prevent discharge to drains.
Large spill	Dike, pump, or use non-combustible material to absorb spill; then place in a labeled container for disposal. Close container and move it to a secure holding area. Prevent discharge to drains.

SECTION 7 - HANDLING AND STORAGE

General handling	Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use appropriate personal protective equipment.
Storage conditions	Store under refrigeration in closed container.
Temperature range for storage	2-7°C

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits			
<u>Compound</u>	<u>Issuer</u>	<u>Type</u>	<u>OEL</u>
Formaldehyde	ACGIH	STEL-C	0.30 ppm
	OSHA	TWA-8 Hr	0.75 ppm
	OSHA	STEL	2 ppm
Merthiolate (as mercury)	OSHA	TWA-8 Hr	0.01 mg/m ³ (skin)
	ACGIH	TWA-8 Hr	0.1 mg/m ³ (skin)
Exposure information	See exposure limits for component (s) listed above.		
Ventilation	Engineering controls should be used as the primary means to control exposures. Exposure monitoring may be necessary to determine requirements.		
Respiratory protection	In the event of a spill where the applicable Occupational Exposure Limit (OEL) may be exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures below the OEL.		
Eye protection	Safety glasses or goggles		
Skin protection	Wear protective clothing when working with large quantities. Wash hands and arms thoroughly after handling this material.		
Hand protection	Wear impervious gloves if skin contact is possible.		

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical form	Liquid Solution
Color	No data available
Molecular weight	Mixture
Molecular formula	Mixture
pH	7.0 +/- 1.5 standard pH units
Boiling point	>100°C
Melting point	Not applicable
Density	No data available
Vapor pressure	Expected to be negligible
Water solubility	Components are soluble in water
Solvent solubility	No data available
Specific gravity	1.0 +/-0.2

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Stable
Conditions to avoid	Store at 2-7°C. Prolonged exposure to higher temperatures may adversely affect potency. Do not freeze.
Incompatibilities	This material can be denatured or inactivated by a variety of organic solvents, salts or heavy metals.
Hazardous decomposition products	None expected under normal conditions.
Hazardous polymerization	Will not occur

SECTION 11 - TOXICOLOGY INFORMATION

Toxicology summary The antigens included in this product are non-infectious. All have been prepared from killed or inactivated preparations of microorganisms. The primary hazards are due to the formaldehyde content.

Acute toxicity

<u>Compound</u>	<u>Type</u>	<u>Route</u>	<u>Species</u>	<u>Result</u>
Formaldehyde	LD ₅₀	Oral	Rat	800 mg/kg
	Irritation	Ocular	Rabbit	Severe
	Irritation	Dermal	Rabbit	Mod-Severe

SECTION 11 - TOXICOLOGY INFORMATION ... continued

Eye	See Acute toxicity table.
Skin	See Acute toxicity table.
Inhalation	Not determined for this mixture. However, irritation may occur based on effects of individual components.
Ingestion	See Acute toxicity table.
Mutagenicity	Formaldehyde has been reported to be active in many short-term tests, both <i>in vitro</i> and <i>in vivo</i> .
Sensitization	This product contains formaldehyde and merthiolate which are considered to be skin sensitizers.
Subchronic effects	Rats exposed to 15 ppm formaldehyde vapor for six hours/day for up to nine days showed an acute cell degeneration, necrosis and inflammation in the nasal cavities. Inhalation exposure to formaldehyde for up to 90 days produced interstitial inflammation in the lungs of dogs, rats, monkeys, rabbits and guinea pigs.
Chronic effects/ carcinogenicity	In rats, several inhalation studies have shown that formaldehyde induces squamous-cell carcinomas and necrosis of the nasal cavity. Formaldehyde also showed cocarcinogenic effects when inhaled, ingested, or applied to the skin of rodents.
Carcinogen status	Contains formaldehyde: potential cancer hazard.
OSHA carcinogen	Yes
NTP carcinogen	B (Reasonably anticipated to be a human carcinogen)
IARC carcinogen	Group 1 - carcinogenic to humans
Reproductive effects	Not considered to be a reproductive hazard.
Teratogenicity	Formaldehyde has been tested by inhalation, oral, and dermal routes and has not been shown to be teratogenic in animals.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental overview	The environmental characteristics of this material have not been fully evaluated. Releases to the environment should be avoided.
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SECTION 13 - DISPOSAL INFORMATION

Disposal procedure	Observe all local and national regulations when disposing of this material. This product contains trace quantities of mercury and may qualify as a RCRA Hazardous Waste. Status should be confirmed using the EPA Toxicity Characteristic Leaching Procedure (TCLP).
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SECTION 14 - TRANSPORTATION INFORMATION

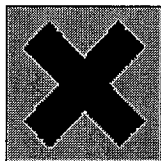
General shipping instructions Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

SECTION 15 - REGULATORY INFORMATION

EU Classification Irritant

EU Labelling Xi

EU Label Pictogram(s)



Risk phrases R43 - May cause sensitization by skin contact.

Safety phrases S24 - Avoid contact with skin.
S37 - Wear suitable gloves.

California Proposition 65 Formaldehyde; Mercury (as Merthiolate)

Canadian WHMIS Class D, Division 2, Subdivision A

SECTION 16 - OTHER

Disclaimer Pfizer Inc believes that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without a warranty of any kind, expressed or implied.