

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

078705717

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

078705725 078705733



## MATERIAL SAFETY DATA SHEET

### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Ingelvac® MycoFLEX™

**Product No. :** Not applicable

**MSDS ID# :** Not applicable

**GHS Product Identifier:** Not applicable

**Synonyms:**

Molecular Formula: Mixture, not applicable

Molecular Weight: Not applicable

CAS Number: Mixture, not applicable

Chemical Family: Vaccine

**Manufacturer:**

Boehringer Ingelheim Vetmedica, Inc.

2621 North Belt Hwy

St. Joseph, MO 64506-2002

**Emergency Telephone:**

Transportation Emergency: (800) 424-9300

Medical Emergency (24HR): (866) 638-2226

**Intended Use:** Recommended for the vaccination of healthy, susceptible swine 3 weeks of age or older as an aid in the reduction of enzootic pneumonia of swine caused by *Mycoplasma hyopneumoniae*.

**Non-emergency Telephone:** (800) 821-7467

### 2 HAZARDS IDENTIFICATION

**Emergency Overview**

**Physical State:** Liquid solution of inactivated bacterin supplied in 10 mL, 50 mL, 100 mL, 250 mL, and 500 mL high density plastic bottles.

**Color:** Clear to slightly turbid rose to brown

**Odor:** No data available



**WARNING!**

**For use in swine only.**

**Not for human use.**

**Allergic reactions can occur.**

**Precautionary Statements:**

Accidental human injection can cause serious local reactions or anaphylactic reaction and systemic effects.

Keep only in original container.

Keep at a temperature between 2 - 7° C.

Do not freeze.

Fire-fighting: Use foam, carbon dioxide, dry powder and water fog or material appropriate for surrounding fire.

Avoid contact with eyes, skin and clothing.

Wash thoroughly with soap and water after handling.

Wear suitable gloves and eye/face protection.

Spills: Cover with absorbent or contain. Collect and incinerate.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

If swallowed, seek medical advice immediately and show this container or label.

This material and its container must be disposed of in a safe way.

Keep out of reach of children.

Keep away from food, drink, and animal feedstuffs.

**Description:**

Recommended for the vaccination of healthy, susceptible swine 3 weeks of age or older as an aid in the reduction of enzootic pneumonia of swine caused by *Mycoplasma hyopneumoniae*.

Shake well before using. Use entire contents when first opened. Using aseptic technique, inject a single 1 mL dose intramuscularly. The duration of immunity is at least 26 weeks.

**Acute effect:** Rarely, severe allergic reactions may occur that require immediate veterinary care. Antidote: Epinephrine.

**Precautions/Contraindications:** Do not vaccinate within 21 days before slaughter.

**Overdosage:** None known.

**ADVERSE REACTIONS TO PRODUCT:** Anaphylactoid reactions may occur but are rare.

**Potential Health Effects**

**Inhalation:** Not expected to be an inhalation hazard with prescribed use.

**Eye Contact:** Not expected to be a hazard to the eye with prescribed use. Exposure to liquid in eye may cause mild transient eye irritation.

**Skin Contact:** Not expected to be a hazard to the skin. Can cause hypersensitive reactions. May cause skin sensitization by contact.

**Ingestion:** Not expected to be an ingestion hazard with prescribed use. Ingestion may cause nausea and systemic effects.

**Injection:** Swelling at injection site may occur.

**Chronic Health Effects:** Possible hypersensitization (development of abnormal sensitivity).

**Target Organ(s):** Gastrointestinal System, Respiratory System

**Potential Physical Effects:** Can cause skin sensitization.

**OSHA Regulatory Status:** Nonhazardous, exempt

**Environment:** No data available

### 3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	EC No.	CAS- No.	Concentration	Classification	Notes
Inactivated bacterin – <i>Mycoplasma</i> <i>hyopneumoniae</i>	----	----	proprietary	----	---
*formaldehyde	2000018	50-00-0	≤ 0.74 g/L	23/24/25/ 34 40 43	---

The full texts for all R-Phrases are displayed in Section 16, if applicable.

\* Used to inactivate virus and subsequently removed from solution. Concentration represents maximum remaining amount by percent weight which is below USDA allowable limits.

### 4 FIRST AID MEASURES

**General:** Animals or persons developing anaphylactic (life-threatening) reactions, such as difficulty in breathing or unconsciousness, must receive immediate medical attention.

**Inhalation:** Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

**Eye Contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

**Skin Contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If skin irritation or rash occurs, seek medical advice. Wash contaminated clothing before reuse.

**Ingestion:** Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

**Injection:** In case of accidental injection, wash the site thoroughly. Contact a physician immediately.

**Note to Physician:** For use in swine only.

**Antidote:** Epinephrine is indicated for anaphylactoid reactions.

### 5 FIRE-FIGHTING MEASURES

**Extinguishing Media:** Extinguish with foam, carbon dioxide, dry powder and water fog or material appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** None known

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus and protective clothing.

**Unusual Fire & Explosion Hazards:** None known

**Hazardous Combustion Products:** Carbon monoxide, carbon dioxide

**Flammability Class:** 0

<b>6 ACCIDENTAL RELEASE MEASURES</b>
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**Personal Precautions:** Wear appropriate personal protective equipment. (See Section 8)

**Spill Cleanup Methods:** Small liquid spill: Use a non-combustible material like vermiculite, earth or sand to soak up the product and place into container for later disposal. Incinerate. For large liquid spill: Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Incinerate.

**Environmental Precautions:** Prevent runoff from entering drains, sewers or streams. Dike for later disposal.

<b>7 HANDLING AND STORAGE</b>
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**Handling:** Avoid contact with eyes, skin and clothing. Avoid accidental injection. Wash thoroughly with soap and water after handling. Use only with adequate ventilation.

**Storage:** Store at 2°-7° C (35°-45° F). Do not freeze. Shake well before using. Use entire contents when first opened.

<b>8 EXPOSURE CONTROLS / PERSONAL PROTECTION</b>
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**For Industrial Exposures:**

**Exposure Limits:**

Formaldehyde	ACGIH	8-HR TWA	0.3 ppm	Irritation, cancer
Formaldehyde	OSHA	Action Level	0.5 ppm	Cancer-suspect agent
Formaldehyde	Austria	TWA	0.5 mg/m <sup>3</sup>	Justifiably suspected of carcinogenic potential. Skin absorption. Sensitizer

Formaldehyde	Alberta	8-HR TWA	0.92 mg/m <sup>3</sup>	Irritation
Formaldehyde	British Columbia	8-HR TWA	0.3 ppm	Capable of causing respiratory, dermal or conjunctival sensitization.
Formaldehyde	Ontario	8-HR TWA	1.5 mg/m <sup>3</sup>	----
Formaldehyde	Quebec	Ceiling Exposure Value	3 mg/m <sup>3</sup>	----
Formaldehyde	Belgium	15-minute STEL	0.38 mg/m <sup>3</sup>	Irritant
Formaldehyde	Denmark	Ceiling	0.4 mg/m <sup>3</sup>	----
Formaldehyde	Finland	8-HR Limit	0.37 mg/m <sup>3</sup>	----
Formaldehyde	France	Short Term Limit	1 ppm	----
Formaldehyde	Germany	8-HR TWA	0.37 mg/m <sup>3</sup>	
Formaldehyde	Greece	8-HR TWA	0.25 mg/m <sup>3</sup>	----
Formaldehyde	Iceland	8-HR TWA	0.4 mg/ m <sup>3</sup>	Allergenic substance
Formaldehyde	Ireland	8-HR TWA	2.5 mg/m <sup>3</sup>	----
Formaldehyde	Italy	Ceiling limit	0.3 ppm	---
Formaldehyde	Netherlands	MAC TWA	1.5 mg/m <sup>3</sup>	----
Formaldehyde	Norway	TLV	0.6 mg/m <sup>3</sup>	Allergenic substance
Formaldehyde	Portugal	Ceiling Exposure limit	0.3 ppm	Sensitizer, suspected human carcinogen
Formaldehyde	Spain	15-minute STEL	0.37 mg/m <sup>3</sup>	Sensitizer
Formaldehyde	Sweden	Level Limit Value (NGV)	0.6 mg/m <sup>3</sup>	----
Formaldehyde	Switzerland	TWA	0.37 mg/m <sup>3</sup>	Sensitizing substance
Formaldehyde	United Kingdom	TWA	2.5 mg/m <sup>3</sup>	----

**Engineering Controls:** Not generally required when handling vials or containers. Good ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Respiratory Protection:** Not generally required when handling vials or containers. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if

respirators are used, a program should be instituted to assure compliance with OSHA standard 63 FR 1152, January 8, 1998. Respirator type: NIOSH approved organic vapor respirator.

**Europe: Wear appropriate personal protective equipment according to the Council Directive 89/686/EEC (4) and the appropriate CEN standards.**

**PERSONAL PROTECTIVE EQUIPMENT:** Not generally required when handling containers. If containers are compromised or exposure to the active ingredient or mixture is likely wear:

**Eye Protection:** Wear safety glasses with side shields (or goggles).

**Hand Protection:** Wear suitable gloves.

**Skin Protection:** Wear protective clothing appropriate for the risk of exposure.

**Hygiene Measures:** Eye bath, washing facilities, shower

## 9 PHYSICAL AND CHEMICAL PROPERTIES

**Color:** Clear to slightly turbid rose to brown

**Odor:** No data available

**Odor Threshold:** No data available

**Physical State:** Liquid solution of inactivated virus supplied in 10 mL, 50 mL, 100 mL, 250 mL, and 500 mL high density plastic bottles.

**pH:** 6.0 – 8.0

**Melting Point:** No data available

**Freezing Point:** No data available

**Boiling Point:** No data available

**Flash Point:** No data available

**Flammability Limit – Upper (%):** No data available

**Flammability Limit – Lower (%):** No data available

**Evaporation rate:** No data available

**Vapor Pressure:** No data available

**Vapor Density (Air=1):** No data available

**Specific Gravity:** No data available

**Solubility:** No data available

**Partition Coefficient (n-Octanol/water):** No data available

**Autoignition Temperature:** Not applicable

**Decomposition Temperature:** No data available

## 10 STABILITY AND REACTIVITY

**Stability:** Stable

**Conditions to Avoid:** Temperatures below 2° C (35° F)

**Incompatible Materials:** Strong oxidizing agents

**Hazardous Decomposition Products:** None known

**Possibility of Hazardous Reactions:** Will not occur.

**11 TOXICOLOGICAL INFORMATION**

Ingelvac® MycoFLEX™ is considered nontoxic.

**Listed Carcinogens:** None

**12 ECOLOGICAL INFORMATION**

**Ecotoxicity:** No data available

**Persistence and degradability:** No data available

**Mobility in soil:** No data available

**Other adverse effects:** No data available

**Germany WGK:** Not applicable

**13 DISPOSAL CONSIDERATIONS**

**General Information:** Dispose of in accordance with local, state, federal, national or international regulations.

**Disposal Methods:** Incinerate containers and unused contents. Do not empty into drains; dispose of this material and its container in a safe way. Do not contaminate water, food, or feed by disposal.

**RCRA Information:** Not applicable

**14 TRANSPORT INFORMATION**

**DOT:** Not regulated

**TDG:** Not regulated

**ADR/RID:** Not regulated

**IATA:** Not regulated

**IMDG:** Not regulated

**15 REGULATORY INFORMATION**

**Canadian Controlled Products Regulations:** This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.

**WHMIS Classification:** Noncontrolled, exempt

**Inventory Status**

This material is **not** listed on the following inventories: TSCA, DSL, AICS, EINECS, IECSC, ENCS, PICCS, KECI, and NZIoC. Therefore, it can only be used for TSCA exempt purposes such as R&D or



veterinary use. In the United States, this product is regulated by the USDA Animal and Plant Health Inspection Service (APHIS).

**Canada CEPA Schedule 1 - Formaldehyde**

**US Regulations**

**CERCLA Hazardous Substance List (40 CFR 302.4):** None

**SARA Title III**

**Section 302Extremely Hazardous Substance (40 CFR 355, Appendix A):** None

**Section 311/312 (40 CFR 370):** None

**Section 313 Toxic Release Inventory (40 CFR 372):** None

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):** None

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):** None

**State Regulations**

**California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):**

Formaldehyde (gas)

**Massachusetts Right-To-Know List:** Formaldehyde

**Minnesota Hazardous Substances List:** None

**New Jersey Right-To-Know List:** None

**Pennsylvania Right-To-Know List:** Formaldehyde

**Rhode Island Right-To-Know List:** Formaldehyde

**European Regulations**

**Austria MAK List (Annex I):** Formaldehyde

**Denmark (Annex 3.6, April 2005):** Formaldehyde

**Germany (Dangerous Substances Ordinance 2004, Annex III):** None

**Norway (List of Dangerous Substance):** None

**Sweden (Sensitizers- Annex 3):** Formaldehyde

**Switzerland (Toxins List 1):** Formaldehyde

<b>16</b>	<b>OTHER INFORMATION</b>
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**Hazard Ratings**

	Health Hazard	Fire Hazard	Reactivity Hazard
<b>HMIS</b>	1	0	0

	Health Hazard	Fire Hazard	Reactivity Hazard	Special Hazard
<b>NFPA</b>	1	0	0	N/A

\*- Chronic health effect; 0 – Minimal; 1 – Slight; 2 – Moderate; 3 – Serious; 4 – Severe

R23/24/25 – Harmful by inhalation, in contact with skin and if swallowed.

R40 - Limited evidence of a carcinogenic effect.

R43 - May cause sensitization by skin contact.

S(1/2) - Keep locked up and out of reach of children.

S24 - Avoid contact with skin.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S51 - Use only in well-ventilated areas.

#### ABBREVIATIONS:

BIV - Boehringer Ingelheim Vetmedica, Inc.

N/A - Not applicable

N/E - Not established

pph – parts per hour

#### References:

1. Ariel WebInsight Regulatory Database. Regulatory Summary for North America, Western Europe, and Global Inventories Database.
2. GHS Manual
3. Ingelvac® MycoFLEX™ Label

**Prepared by:** Boehringer Ingelheim Vetmedica, Inc.

**Issue Date:** 08/14/07

**Supercedes Date:** New MSDS

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# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	Ingelvac MycoFLEX®
<b>Other means of identification</b>	
<b>Product code</b>	APHIS Code- 2775.02, Family Code - 273
<b>Recommended use</b>	Veterinary Vaccine
<b>Recommended restrictions</b>	Not for human use.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Manufacturer</b>	Boehringer Ingelheim Vetmedica, Inc.
<b>Address</b>	2621 North Belt Hwy St. Joseph, MO 64506-2002
<b>Transportation emergency</b>	For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)
<b>Medical Emergency (24HR):</b>	(866)638-2226
<b>Non-Emergency calls:</b>	(800) 821-7467

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Sensitization, skin	Category 1
	Carcinogenicity	Category 1
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		



<b>Signal word</b>	Danger
<b>Hazard statement</b>	May cause cancer. May cause an allergic skin reaction.
<b>Precautionary statement</b>	
<b>Prevention</b>	Avoid breathing mist or vapor. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. Obtain special instructions before use.
<b>Response</b>	If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Storage</b>	Store away from incompatible materials. Keep at a temperature between 2 - 7°C Do not freeze. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	Contains formaldehyde. May produce an allergic reaction.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	CAS number	%
*Formaldehyde	50-00-0	<= 0.74 g/L

**Composition comments** \* Used to inactivate bacterin and subsequently removed from solution. Concentration represents maximum remaining amount by percent weight which is below USDA allowable limits.

#### 4. First-aid measures

**Inhalation** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

**Skin contact** Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.

**Most important symptoms/effects, acute and delayed** May cause an allergic skin reaction. Dermatitis. Rash. Ingestion of a large quantity may cause vomiting, nausea, dizziness, drowsiness and other systemic effects.

**Indication of immediate medical attention and special treatment needed** Not for human use. For use in animals only. Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. Persons developing anaphylactic (life threatening) reactions, such as difficulty in breathing or unconsciousness, must receive immediate medical attention.

**General information** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

#### 5. Fire-fighting measures

**Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical** During fire, gases hazardous to health may be formed. Combustion products may include: carbon monoxide and carbon dioxide.

**Special protective equipment and precautions for firefighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions** Move containers from fire area if you can do so without risk.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards** No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up** Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

**Environmental precautions** Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

#### 7. Handling and storage

**Precautions for safe handling** Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Shake well before using. Avoid accidental injection.

**Conditions for safe storage, including any incompatibilities** Keep away from food, drink and animal feedingstuffs. Store at 2°-7° C (35°-45° F). Do not freeze.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
*Formaldehyde (CAS 50-00-0)	STEL	2 ppm
	TWA	0.75 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value
*Formaldehyde (CAS 50-00-0)	Ceiling	0.3 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
*Formaldehyde (CAS 50-00-0)	Ceiling	0.1 ppm
	TWA	0.016 ppm

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Not generally required when handling vials or containers. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Not generally required when handling containers. If containers are compromised or exposure to the mixture is likely: Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Not generally required when handling containers. If containers are compromised or exposure to the mixture is likely: Wear suitable gloves.
<b>Other</b>	Not generally required when handling containers. If containers are compromised or exposure to the mixture is likely: Wear lab coat, apron or appropriate clothing to prevent skin contact.
<b>Respiratory protection</b>	Not generally required when handling vials or containers. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Respirator type: NIOSH approved organic vapor respirator.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

<b>Appearance</b>	Liquid solution of inactivated bacterin.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Clear to slightly turbid rose to brown.
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	6 - 8
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Vapor pressure** Not available.

**Vapor density** Not available.

**Relative density** Not available.

**Solubility(ies)**

**Solubility (water)** Not available.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

**10. Stability and reactivity**

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Material is stable under normal conditions.

**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**Conditions to avoid** Temperatures below 2°C.

**Incompatible materials** Strong oxidizing agents.

**Hazardous decomposition products** No hazardous decomposition products are known.

**11. Toxicological information****Information on likely routes of exposure**

**Inhalation** May cause inhalation hypersensitivity (occupational asthma) in sensitive individuals.

**Skin contact** May cause an allergic skin reaction.

**Eye contact** Direct contact with eyes may cause temporary irritation.

**Ingestion** Ingestion may cause irritation and stomach discomfort.

**Symptoms related to the physical, chemical and toxicological characteristics** May cause an allergic skin reaction. Dermatitis. Rash. Ingestion of a large quantity may cause vomiting, nausea, dizziness, drowsiness and other systemic effects.

**Information on toxicological effects**

**Acute toxicity** May cause an allergic skin reaction.

Components	Species	Test Results
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\*Formaldehyde (CAS 50-00-0)

**Acute****Inhalation**

LC50	Rat	0.48 mg/l, 4 Hours
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**Oral**

LD50	Rat	100 mg/kg
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**Skin corrosion/irritation** May cause an allergic skin reaction.

**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

**Respiratory or skin sensitization****ACGIH sensitization**

FORMALDEHYDE (CAS 50-00-0)	Dermal sensitization Respiratory sensitization
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**Respiratory sensitization** Exposure to formaldehyde may cause respiratory sensitization in some individuals or aggravate pre-existing asthmatic conditions.

<b>Skin sensitization</b>	May cause an allergic skin reaction.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	Contains a component that is listed as an IARC 1 (Known Human Carcinogen), a NTP Known Carcinogen and an ACGIH A2 (Suspected Human Carcinogen). In vaccines, the chronic exposure potential is negligible.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
*Formaldehyde (CAS 50-00-0)	1 Carcinogenic to humans.
<b>NTP Report on Carcinogens</b>	
*Formaldehyde (CAS 50-00-0)	Known To Be Human Carcinogen.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
*Formaldehyde (CAS 50-00-0)	Cancer
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	No data available.
<b>Specific target organ toxicity - repeated exposure</b>	No data available.
<b>Aspiration hazard</b>	Not classified, however droplets of the product may be aspirated into the lungs through ingestion or vomiting and may cause a serious chemical pneumonia.
<b>Chronic effects</b>	Possible hyper sensitization (development of abnormal sensitivity).

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
*Formaldehyde (CAS 50-00-0)		
<b>Aquatic</b>		
Crustacea	EC50 Water flea ( <i>Daphnia pulex</i> )	4.3 - 7.8 mg/l, 48 hours
Fish	LC50 Striped bass ( <i>Morone saxatilis</i> )	10.302 - 16.743 mg/l, 96 hours

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available for this product.

### Partition coefficient n-octanol / water (log Kow)

\*Formaldehyde (CAS 50-00-0) 0.35

**Mobility in soil** Diluent and end-product expected to be slightly to moderately mobile in soil.

**Other adverse effects** This product contains one or more substances identified as hazardous air pollutants (HAPs) per the US Federal Clean Air Act (see section 15).

## 13. Disposal considerations

**Disposal instructions** This material and its container must be disposed of in a safe way. Burn container and all unused contents. Do not discharge into drains, water courses or onto the ground. Do not contaminate water, food, or feed by disposal.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

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

**15. Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
One or more components are not listed on TSCA.  
Therefore, it can only be used for TSCA exempt purposes such as R&D or veterinary use.  
**FEDERAL LAW RESTRICTS THIS DRUG TO USE BY OR ON ORDER OF LICENSED VETERINARIANS.**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

\*Formaldehyde (CAS 50-00-0) Cancer  
Skin sensitization  
Respiratory sensitization  
Eye irritation  
Skin irritation  
respiratory tract irritation  
Acute toxicity  
Flammability

**CERCLA Hazardous Substance List (40 CFR 302.4)**

\*Formaldehyde (CAS 50-00-0) LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
*Formaldehyde	50-00-0	100	500		

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
*Formaldehyde	50-00-0	<= 0.74 g/L

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

\*Formaldehyde (CAS 50-00-0)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

\*Formaldehyde (CAS 50-00-0)

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations** WARNING: This product contains chemical(s) known to the State of California to cause cancer.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

\*Formaldehyde (CAS 50-00-0)

**US. Massachusetts RTK - Substance List**

\*Formaldehyde (CAS 50-00-0)

**US. New Jersey Worker and Community Right-to-Know Act**

\*Formaldehyde (CAS 50-00-0)



## US. Pennsylvania Worker and Community Right-to-Know Law

\*Formaldehyde (CAS 50-00-0)

## US. Rhode Island RTK

\*Formaldehyde (CAS 50-00-0)

### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

### 16. Other information, including date of preparation or last revision

Issue date	11-April-2017
Revision date	-
Version #	01
HMIS® ratings	Health: 2 Flammability: 0 Physical hazard: 0

#### NFPA ratings



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