SAFETY DATA SHEETS

This SDS packet was issued with item:

078446821

N/A

SAFETY DATA SHEET

1. Identification

Product identifier Vira Shield 6 + L5

Other means of identification

Item Code ZD6125, AV6125 Recommended use Veterinary Vaccine **Recommended restrictions** None known.

Manufacturer/Importer/Supplier/Distributor information Elanco Animal Health **Company Name** 2500 Innovation Way

Greenfield, IN 46140

US

Phone: 1-877-Elanco1 (1-877-352-6261)

Email: lilly_msds@lilly.com

Emergency Telephone Elanco Product Technical Support / Human or Animal Exposure Reporting:

1-888-545-5973 Numbers:

CHEMTREC: 1-800-424-9300 **Transportation Emergency** (Outside U.S. 1-703-527-3887) Telephone:

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Aspiration hazard Category 1

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement

May be fatal if swallowed and enters airways. H304

Precautionary statement

Not available. Prevention

Response

IF SWALLOWED: Immediately call a POISON CENTER/doctor. P301 + P310

Do NOT induce vomiting. P331

Storage

Store locked up. P405

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise

Accidental injection may cause local swelling, irritation or necrosis at the injection site. Get

classified (HNOC) medical attention immediately. See also section 4.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Material name: Vira Shield 6 + L5 SDS US 6719 Version #: 01 Issue date: 10-05-2017

Chemical name	Common name and synonyms	CAS number	%
Mineral Oil Adjuvant SO 3-003		Mixture	20
Formaldehyde		50-00-0	<= 0.074
Thimerosal		54-64-8	<= 0.01

Composition comments

* Mineral Oil Adjuvant contains up to 92% Light Mineral Oil (CAS 8042-47-5)

Remaining components of this product are non-hazardous and/or are present at concentrations

below reportable levels.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Wash off with soap and water. Get medical attention if irritation develops and persists. Skin contact

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

Ingestion Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content

doesn't get into the lungs. Never give anything by mouth to a victim who is unconscious or is

having convulsions. Get medical attention.

Most important symptoms/effects, acute and Aspiration may cause pulmonary edema and pneumonitis. Accidental injection may cause local swelling, irritation or necrosis at the injection site.

delayed

In case of accidental self-injection of oil emulsion vaccines, get medical attention immediately.

Indication of immediate medical attention and special treatment needed

SEEK IMMEDIATE MEDICAL TREATMENT at nearest Hospital Emergency Room even if only a very small amount is injected, as failure to treat may result in the mineral oil adjuvant causing sterile abscess and/or loss of affected finger or thumb. If pain persists for more than 12 hours after medical examination, seek additional medical advice.

To the Doctor: This product contains mineral oil. Accidental injection with this oil-based product, even in small quantities, can cause intense swelling which may, for example, result in ischaemic necrosis and the loss of a digit. Expert PROMPT, surgical attention is required and may necessitate early incision and irrigation of the injected area, especially where there is involvement of finger pulp or tendon.

General information

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

Not available.

Specific hazards arising from

the chemical

Not applicable.

Special protective equipment and precautions for firefighters Wear suitable protective equipment.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Not available.

Methods and materials for containment and cleaning up Prevent entry into waterways, sewer, basements or confined areas.

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

Never return spills to original containers for re-use.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Conditions for safe storage,

including any incompatibilities

Use a needle guard to help prevent self-injection. Observe good industrial hygiene practices.

Store in original tightly closed container.

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8. Exposure controls/personal protection

Occupational exposure limits

LIS	ACGIH	Threshold	I imit	Values
US.	ACGIN	1111621101U	LIIIIIL	values

Components	Туре	Value	Form
Formaldehyde (CAS 50-00-0)	Ceiling	0.3 ppm	
Light Mineral Oil (CAS 8042-47-5)	TWA	5 mg/m3	Inhalable fraction.
Thimerosal (CAS 54-64-8)	STEL	0.03 mg/m3	
	TWA	0.01 mg/m3	
US. OSHA Specifically Regulated	Substances (29 CFR 1910.1001-1	050)	
Components	Туре	Value	
Formaldehyde (CAS 50-00-0)	STEL	2 ppm	
,	TWA	0.75 ppm	
US. OSHA Table Z-1 Limits for Air	Contaminants (29 CFR 1910.1000))	
Components	Туре	Value	Form
Light Mineral Oil (CAS 8042-47-5)	PEL	5 mg/m3	Mist.
0042-47-0)			
US. OSHA Table Z-2 (29 CFR 1910			
US. OSHA Table Z-2 (29 CFR 1910 Components	.1000) Type	Value	
US. OSHÁ Table Z-2 (29 CFR 1910 Components		Value 0.04 mg/m3	
US. OSHÁ Table Z-2 (29 CFR 1910 Components	Туре		
US. OSHA Table Z-2 (29 CFR 1910 Components Thimerosal (CAS 54-64-8)	Type Ceiling TWA	0.04 mg/m3	
US. OSHA Table Z-2 (29 CFR 1910 Components Thimerosal (CAS 54-64-8) US. NIOSH: Pocket Guide to Chen	Type Ceiling TWA	0.04 mg/m3	Form
US. OSHA Table Z-2 (29 CFR 1910 Components Thimerosal (CAS 54-64-8) US. NIOSH: Pocket Guide to Chem Components Formaldehyde (CAS	Type Ceiling TWA nical Hazards	0.04 mg/m3 0.01 mg/m3	Form
US. OSHA Table Z-2 (29 CFR 1910 Components Thimerosal (CAS 54-64-8) US. NIOSH: Pocket Guide to Chem Components Formaldehyde (CAS	Type Ceiling TWA nical Hazards Type	0.04 mg/m3 0.01 mg/m3 Value	Form
US. OSHA Table Z-2 (29 CFR 1910 Components Thimerosal (CAS 54-64-8) US. NIOSH: Pocket Guide to Chem Components Formaldehyde (CAS 50-00-0) Light Mineral Oil (CAS	Type Ceiling TWA nical Hazards Type Ceiling	0.04 mg/m3 0.01 mg/m3 Value 0.1 ppm	Form Mist.
US. OSHA Table Z-2 (29 CFR 1910 Components Thimerosal (CAS 54-64-8) US. NIOSH: Pocket Guide to Chen Components Formaldehyde (CAS 50-00-0) Light Mineral Oil (CAS	Type Ceiling TWA nical Hazards Type Ceiling TWA	0.04 mg/m3 0.01 mg/m3 Value 0.1 ppm 0.016 ppm	
US. OSHA Table Z-2 (29 CFR 1910	Type Ceiling TWA nical Hazards Type Ceiling TWA STEL	0.04 mg/m3 0.01 mg/m3 Value 0.1 ppm 0.016 ppm 10 mg/m3	Mist.

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US - California OELs: Skin designation

Thimerosal (CAS 54-64-8)

Can be absorbed through the skin.

TWA

US - Tennessee OELs: Skin designation

Thimerosal (CAS 54-64-8) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Thimerosal (CAS 54-64-8)

Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

Thimerosal (CAS 54-64-8)

Can be absorbed through the skin.

Appropriate engineering

Ensure adequate ventilation, especially in confined areas.

controls

Individual protection measures, such as personal protective equipment

Eye/face protection Safety glasses.

Skin protection

Hand protection Use a needle guard to help prevent self-injection. Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Not available

General hygiene considerations

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

0.01 mg/m3

equipment to remove contaminants.

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Obtained by Global Safety Management, www.globalsafetynet.com, (877) 683-7460

9. Physical and chemical properties

Appearance

Liquid. **Physical state** Liquid **Form**

Color Not available. Odor Not available. **Odor threshold** Not available. Not available. pН Melting point/freezing point Not available. Not available. Initial boiling point and boiling

range

Flash point Not available. **Evaporation rate** Not available. Not available. Flammability (solid, gas) Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available. Explosive limit - upper (%) Not available. Vapor pressure Not available. Not available. Vapor density Not available. Relative density

Solubility(ies)

Not available. Solubility (water) **Partition coefficient** Not available.

(n-octanol/water)

Not available. **Auto-ignition temperature** Not available. **Decomposition temperature**

< 20.5 mm²/s at 40 C **Viscosity**

Other information

Explosive properties Not explosive. **Oxidizing properties** Not oxidizing.

10. Stability and reactivity

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

Material is stable under normal conditions. **Chemical stability** Possibility of hazardous Hazardous polymerization does not occur.

reactions

Conditions to avoid Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on toxicological effects

May be fatal if swallowed and enters airways. Acute toxicity

Species Test Results Components

Formaldehyde (CAS 50-00-0)

Acute Inhalation

LC50 Rat 10500 mg/m3, 4 hours

Oral

LD50 Rat 640 mg/kg

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Species Components **Test Results**

Thimerosal (CAS 54-64-8)

Acute Oral

LD50 Rat 75 mg/kg

Rabbit: Corrosive. (Formaldehyde) Skin corrosion/irritation

No skin irritation. (0.1% Thimerosal)

Based on available data, the classification criteria are not met.

Serious eye damage/eye

irritation

Rabbit: Corrosive. (Formaldehyde) Slight irritation. (0.1% Thimerosal)

Based on available data, the classification criteria are not met.

Respiratory or skin sensitization

ACGIH sensitization

FORMALDEHYDE (CAS 50-00-0)

Dermal sensitization Respiratory sensitization

Exposure to formaldehyde may cause respiratory sensitization in some individuals or aggravate Respiratory sensitization

pre-existing asthmatic conditions.

Based on available data, the classification criteria are not met.

May cause an allergic skin reaction. (Formaldehyde) Skin sensitization

Risk of sensitization or allergic reactions among sensitive individuals. (Thimerosal)

Based on available data, the classification criteria are not met.

Germ cell mutagenicity Result in genetic toxicity assays (in vitro and in vivo): Mixed results (Formaldehyde)

Result in genetic toxicity assays (in vitro and in vivo): Negative (Thimerosal)

Based on available data, the classification criteria are not met.

May cause cancer. (Formaldehyde) Carcinogenicity

Based on available data, the classification criteria are not met.

IARC Monographs. Overall Evaluation of Carcinogenicity

Formaldehyde (CAS 50-00-0) 1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Formaldehyde (CAS 50-00-0) Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

Known To Be Human Carcinogen. Formaldehyde (CAS 50-00-0)

No effects identified in animal studies. (Formaldehyde) Reproductive toxicity May damage fertility or the unborn child. (Thimerosal)

Based on available data, the classification criteria are not met.

Specific target organ toxicity -

single exposure

May cause respiratory irritation. (Formaldehyde)

Based on available data, the classification criteria are not met.

Specific target organ toxicity -

repeated exposure

No significant target organ toxicity reported. (Formaldehyde)

May cause damage to organs through prolonged or repeated exposure. (Thimerosal)

Based on available data, the classification criteria are not met.

Aspiration hazard May be fatal if swallowed and enters airways. (Mineral oil)

Accidental injection may cause local swelling, irritation or necrosis at the injection site. **Further information**

12. Ecological information

Ecotoxicity

Components		Species	Test Results
Formaldehyde (CAS 5	50-00-0)		
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	29 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	24.1 mg/l, 96 hours
Chronic			
Fish	NOFC	Medaka, high-eyes (Oryzias latines)	> 48 mg/L 28 days

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Components **Test Results Species**

Thimerosal (CAS 54-64-8)

Aquatic Acute

LC50 Fish Bullhead, catfish (Ictalurus sp.) 7.5 mg/l, 24 hours

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

Bioaccumulative potential No data available. Partition coefficient n-octanol / water (log Kow)

Formaldehyde 0.35

Mobility in soil No data available. Not available. Other adverse effects

13. Disposal considerations

Disposal instructions Dispose of contents/container in accordance with local/regional/national/international regulations.

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 Not established.

Annex II of MARPOL 73/78 and

the IBC Code

15. Regulatory information

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication **US** federal regulations

Standard, 29 CFR 1910.1200.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Formaldehyde (CAS 50-00-0) Listed.

SARA 304 Emergency release notification

Formaldehyde (CAS 50-00-0) 100 LBS 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

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Immediate Hazard - Yes **Hazard categories**

Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Formaldehyde (CAS 50-00-0)

Material name: Vira Shield 6 + L5 6719 Version #: 01 Issue date: 10-05-2017 Thimerosal (CAS 54-64-8)

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

Formaldehyde (CAS 50-00-0)

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Formaldehyde (CAS 50-00-0) Listed: January 1, 1988

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Thimerosal (CAS 54-64-8) Listed: July 1, 1990

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Formaldehyde (CAS 50-00-0)

International Inventories

Country(s) or regionInventory nameOn inventory (yes/no)*CanadaDomestic Substances List (DSL)NoCanadaNon-Domestic Substances List (NDSL)No

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory No

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 10-05-2017

Version # 01

Disclaimer As of the date of issuance, we are providing available information relevant to the handling of this

material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for

product literature which may accompany the finished product.

For additional information contact:

Elanco Animal Health 0011+1-877-352-6261 0011+1-800-428-4441

Material name: Vira Shield 6 + L5 SDS US

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)