



SAFETY DATA SHEET

1. Identification

Product identifier Vira Shield 6 + VL5

Other means of identification

Item Code ZD6145, AV6145

Recommended use Veterinary Vaccine

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company name Elanco Animal Health

Division Eli Lilly Canada Inc.

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Dangerous Goods CANUTEC (24 HR) 1-613-996-6666

Emergency

Supplier Not available.

2. Hazard identification

Physical hazards Not classified.

Health hazards Aspiration hazard Category 1

Environmental hazards Not classified.

Label elements



Signal word Danger

Hazard statement May be fatal if swallowed and enters airways.

Precautionary statement

Prevention Not available.

Response IF SWALLOWED: Immediately call a POISON CENTRE/doctor. Do NOT induce vomiting.

Storage Store locked up.

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

Other hazards Accidental injection may cause local swelling, irritation or necrosis at the injection site. Get medical attention immediately. See also section 4.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

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.

Skin contact

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

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 delayed

Aspiration may cause pulmonary oedema and pneumonitis. Accidental injection may cause local swelling, irritation or necrosis at the injection site.

Indication of immediate medical attention and special treatment needed

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

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

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

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

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

Conditions for safe storage, including any incompatibilities

Store in original tightly closed container.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values Components

Formaldehyde (CAS
50-00-0)

Type

Ceiling

Value

0.3 ppm

Form

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
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	

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Formaldehyde (CAS 50-00-0)	Ceiling	1.3 mg/m3	
		1 ppm	
	TWA	0.9 mg/m3 0.75 ppm	
Light Mineral Oil (CAS 8042-47-5)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Thimerosal (CAS 54-64-8)	STEL	0.03 mg/m3	
	TWA	0.01 mg/m3	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Formaldehyde (CAS 50-00-0)	Ceiling	1 ppm	
	TWA	0.3 ppm	
Light Mineral Oil (CAS 8042-47-5)	TWA	1 mg/m3	Mist.
Thimerosal (CAS 54-64-8)	STEL	0.03 mg/m3	
	TWA	0.01 mg/m3	

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	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	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Formaldehyde (CAS 50-00-0)	Ceiling	1.5 ppm	
	STEL	1 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	

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
Formaldehyde (CAS 50-00-0)	Ceiling	3 mg/m3	

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
Light Mineral Oil (CAS 8042-47-5)	STEL	2 ppm	
		10 mg/m3	Mist.
Thimerosal (CAS 54-64-8)	TWA	5 mg/m3	Mist.
	STEL	0.03 mg/m3	
	TWA	0.01 mg/m3	

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value
Formaldehyde (CAS 50-00-0)	Ceiling	0.3 ppm
Light Mineral Oil (CAS 8042-47-5)	15 minute	10 mg/m3
	8 hour	5 mg/m3
Thimerosal (CAS 54-64-8)	15 minute	0.03 mg/m3
	8 hour	0.01 mg/m3

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

Appropriate engineering controls Ensure adequate ventilation, especially in confined areas.

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 equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid

Colour Not available.

Odour Not available.

Odour threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available.

Explosive limit – upper (%) Not available.

Vapour pressure Not available.

Vapour 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	< 20.5 mm ² /s at 40 C
Other information	
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

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	Hazardous polymerisation does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

Components	Species	Test Results
Formaldehyde (CAS 50-00-0)		
<u>Acute</u>		
Inhalation		
LC50	Rat	10500 mg/m ³ , 4 hours
Oral		
LD50	Rat	640 mg/kg
Thimerosal (CAS 54-64-8)		
<u>Acute</u>		
Oral		
LD50	Rat	75 mg/kg

Skin corrosion/irritation Rabbit: Corrosive. (Formaldehyde)
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 sensitisation

ACGIH sensitisation

FORMALDEHYDE (CAS 50-00-0) Dermal sensitization
Respiratory sensitisation

Canada - British Columbia OELs: Respiratory or skin sensitiser

Formaldehyde (CAS 50-00-0) Capable of causing respiratory, dermal or conjunctival sensitization.

Canada - Manitoba OELs Hazard: Dermal sensitization

Formaldehyde (CAS 50-00-0) Dermal sensitization

Canada - Manitoba OELs Hazard: Respiratory sensitization

Formaldehyde (CAS 50-00-0) Respiratory sensitisation

Canada - Saskatchewan OELs Hazard Data: Sensitiser

Formaldehyde (CAS 50-00-0) Sensitiser.

Respiratory sensitisation	Exposure to formaldehyde may cause respiratory sensitisation in some individuals or aggravate pre-existing asthmatic conditions. Based on available data, the classification criteria are not met.
Skin sensitisation	May cause an allergic skin reaction. (Formaldehyde) Risk of sensitisation 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.
Carcinogenicity	May cause cancer. (Formaldehyde) Based on available data, the classification criteria are not met.
ACGIH Carcinogens	
Formaldehyde (CAS 50-00-0)	A1 Confirmed human carcinogen.
Canada - Alberta OELs: Carcinogen category	
Formaldehyde (CAS 50-00-0)	Suspected human carcinogen.
Canada - Manitoba OELs: carcinogenicity	
Formaldehyde (CAS 50-00-0)	Confirmed human carcinogen.
Canada - Quebec OELs: Carcinogen category	
Formaldehyde (CAS 50-00-0)	Suspected carcinogenic effect in humans.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Formaldehyde (CAS 50-00-0)	1 Carcinogenic to humans.
US. National Toxicology Program (NTP) Report on Carcinogens	
Formaldehyde (CAS 50-00-0)	Known To Be Human Carcinogen.
Reproductive toxicity	No effects identified in animal studies. (Formaldehyde) 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)
Further information	Accidental injection may cause local swelling, irritation or necrosis at the injection site.

12. Ecological information

Ecotoxicity

Components	Species		Test Results
Formaldehyde (CAS 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	NOEC	Medaka, high-eyes (Oryzias latipes)	> 48 mg/l, 28 days
Thimerosal (CAS 54-64-8)			
Aquatic			
Acute			
Fish	LC50	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.		
Other adverse effects	Not available.		

13. Disposal considerations

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

14. Transport information

TDG

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

Canadian regulations

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Ontario. Toxic Substances. Toxic Reduction Act, 2009. Regulation 455/09 (July 1, 2011)

Formaldehyde (CAS 50-00-0)

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

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

*A "Yes" indicates that all components of this product comply 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

Issue date 05-October-2017

Revision date 11-April-2019

Version No. 02

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 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:

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Revision information First-aid measures: Indication of immediate medical attention and special treatment needed
Other information: Disclaimer