



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** Vira Shield 6

**Other means of identification**

**Item Code** ZD6120, AV6120

**Recommended use** Veterinary Vaccine

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Company name** Elanco Animal Health

**Division** Eli Lilly Canada Inc.

**Address** Research Park Center  
150 Research Lane, Suite 120  
Guelph, ON N1G 4T2

**Country** Canada

**Telephone** +1+317-276-2000

**E-mail** elanco\_sds@elanco.com

**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.

|                                                |                                   |
|------------------------------------------------|-----------------------------------|
| <b>Solubility(ies)</b>                         |                                   |
| <b>Solubility (water)</b>                      | Not available.                    |
| <b>Partition coefficient (n-octanol/water)</b> | Not available.                    |
| <b>Auto-ignition temperature</b>               | Not available.                    |
| <b>Decomposition temperature</b>               | Not available.                    |
| <b>Viscosity</b>                               | < 20.5 mm <sup>2</sup> /s at 40 C |
| <b>Other information</b>                       |                                   |
| <b>Explosive properties</b>                    | Not explosive.                    |
| <b>Oxidising properties</b>                    | Not oxidising.                    |

## 10. Stability and reactivity

|                                           |                                                                                               |
|-------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| <b>Chemical stability</b>                 | Material is stable under normal conditions.                                                   |
| <b>Possibility of hazardous reactions</b> | Hazardous polymerisation does not occur.                                                      |
| <b>Conditions to avoid</b>                | Contact with incompatible materials.                                                          |
| <b>Incompatible materials</b>             | Strong oxidising agents.                                                                      |
| <b>Hazardous decomposition products</b>   | 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) |         |                                   |
| <b><u>Acute</u></b>        |         |                                   |
| <b>Inhalation</b>          |         |                                   |
| LC50                       | Rat     | 10500 mg/m <sup>3</sup> , 4 hours |
| <b>Oral</b>                |         |                                   |
| LD50                       | Rat     | 640 mg/kg                         |
| Thimerosal (CAS 54-64-8)   |         |                                   |
| <b><u>Acute</u></b>        |         |                                   |
| <b>Oral</b>                |         |                                   |
| 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.

|                                                                    |                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Respiratory sensitisation</b>                                   | Exposure to formaldehyde may cause respiratory sensitisation in some individuals or aggravate pre-existing asthmatic conditions.<br>Based on available data, the classification criteria are not met.                                          |
| <b>Skin sensitisation</b>                                          | May cause an allergic skin reaction. (Formaldehyde)<br>Risk of sensitisation or allergic reactions among sensitive individuals. (Thimerosal)<br>Based on available data, the classification criteria are not met.                              |
| <b>Germ cell mutagenicity</b>                                      | Result in genetic toxicity assays (in vitro and in vivo): Mixed results (Formaldehyde)<br>Result in genetic toxicity assays (in vitro and in vivo): Negative (Thimerosal)<br>Based on available data, the classification criteria are not met. |
| <b>Carcinogenicity</b>                                             | May cause cancer. (Formaldehyde)<br>Based on available data, the classification criteria are not met.                                                                                                                                          |
| <b>ACGIH Carcinogens</b>                                           |                                                                                                                                                                                                                                                |
| Formaldehyde (CAS 50-00-0)                                         | A1 Confirmed human carcinogen.                                                                                                                                                                                                                 |
| <b>Canada - Alberta OELs: Carcinogen category</b>                  |                                                                                                                                                                                                                                                |
| Formaldehyde (CAS 50-00-0)                                         | Suspected human carcinogen.                                                                                                                                                                                                                    |
| <b>Canada - Manitoba OELs: carcinogenicity</b>                     |                                                                                                                                                                                                                                                |
| Formaldehyde (CAS 50-00-0)                                         | Confirmed human carcinogen.                                                                                                                                                                                                                    |
| <b>Canada - Quebec OELs: Carcinogen category</b>                   |                                                                                                                                                                                                                                                |
| Formaldehyde (CAS 50-00-0)                                         | Suspected carcinogenic effect in humans.                                                                                                                                                                                                       |
| <b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>      |                                                                                                                                                                                                                                                |
| Formaldehyde (CAS 50-00-0)                                         | 1 Carcinogenic to humans.                                                                                                                                                                                                                      |
| <b>US. National Toxicology Program (NTP) Report on Carcinogens</b> |                                                                                                                                                                                                                                                |
| Formaldehyde (CAS 50-00-0)                                         | Known To Be Human Carcinogen.                                                                                                                                                                                                                  |
| <b>Reproductive toxicity</b>                                       | No effects identified in animal studies. (Formaldehyde)<br>May damage fertility or the unborn child. (Thimerosal)<br>Based on available data, the classification criteria are not met.                                                         |
| <b>Specific target organ toxicity - single exposure</b>            | May cause respiratory irritation. (Formaldehyde)<br>Based on available data, the classification criteria are not met.                                                                                                                          |
| <b>Specific target organ toxicity - repeated exposure</b>          | No significant target organ toxicity reported. (Formaldehyde)<br>May cause damage to organs through prolonged or repeated exposure. (Thimerosal)<br>Based on available data, the classification criteria are not met.                          |
| <b>Aspiration hazard</b>                                           | May be fatal if swallowed and enters airways. (Mineral oil)                                                                                                                                                                                    |
| <b>Further information</b>                                         | 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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0011+1-800-428-4441

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