## SAFETY DATA SHEET



## 1. Identification

Product identifier	CattleMaster® 4+VL5
Other means of identification	
Synonyms	CattleMaster 4+VL5 * Bovine Rhinotracheitis-Virus Diarrhea-Parainfluenza3-Respiratory Syncytial Virus Vaccine, Modified Live & Killed Virus-Campylobacter fetus-Leptospira Canicola-Grippotyphosa-Hardjo-Ichterohaemorrhagiae- Pomona Bacterin
Recommended use	Veterinary vaccine
Recommended restrictions	Not for human use
Manufacturer/Importer/Supplier/	Distributor information
Company Name (USA)	Zoetis Inc.
	10 Sylvan Way
	Parsippany, New Jersey 07054 (USA)
Rocky Mountain Poison and Drug Center	1-866-531-8896
Product Support/Technical Services	1-800-366-5288
Emergency telephone numbers	CHEMTREC (24 hours): 1-800-424-9300
	International CHEMTREC (24 hours): +1-703-527-3887
Company Name (CA)	Zoetis Canada Inc.
Company Name (CA)	16740 Trans-Canada Highway
	Kirkland, Quebec, H9H 4M7
Emergency telephone	International CHEMTREC (24 hours): +1-703-527-3887
number	
Contact E-Mail	productsupport@zoetis.com
Product Support	1-800-461-0917
	All Safety Data Sheets are available via our Zoetis Canada website at https://www.zoetis.ca/sds/sds.aspx
Supplier	Not available.
2. Hazard(s) identification	
Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Other hazards	None known.
Supplemental information	Direct contact with eyes may cause temporary irritation. In the event of accidental injection, an allergic reaction may occur. Contains Formaldehyde. May produce an allergic reaction.

## 3. Composition/information on ingredients

#### **Mixtures**

Chemical name	Common name and synonyms	CAS number	%
Aluminium hydroxide		21645-51-2	<5
Formaldehyde		50-00-0	<0.1
Bovine Parainfluenza3		Not assigned	*
Bovine Respiratory Syncytial Virus		Not assigned	*
Bovine Rhinotrachetitis		Not assigned	*
Bovine Virus Diarrhea		Not assigned	*
Campylobacter fetus		Not assigned	*
Gentamicin		1403-66-3	##
_eptospira canicola		Not assigned	*
Leptospira grippotyphosa		Not assigned	*
Leptospira hardjo		Not assigned	*
Leptospira icterohaemorrhagiae		Not assigned	*
Leptospira pomona		Not assigned	*
Sodium O-(ethylmercurithio)benzoate		54-64-8	##

O-(ethylmercurithio)benzoate

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**Composition comments** 

## Trace \* Non-hazardous Ingredients

4. First-aid	measures
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Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	In the case of skin contact, immediately wash the skin with plenty of soap and water. In the event of accidental self injection or needle stick injury, wash the injury thoroughly with clean running water. Get medical attention immediately.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contact lenses, if present and easy to do.
Ingestion	Rinse mouth. Call a physician or poison control centre immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconsious person.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort. In the event of accidental injection, an allergic reaction may occur. Signs and symptoms might include skin rash, itching, redness or swelling. Respiratory reactions may be characterized by rhinitis, sneezing, scratchy throat, oral mucosal edema, laryngeal mucosal edema, coughing, shortness of breath, wheezing, and chest pain. Asthma like reactions occur with acute exposures in sensitized patients.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	For personal protection, see section 8 of the SDS. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
5. Fire-fighting measures	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
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	Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

Use standard firefighting procedures and consider the hazards of other involved materials. No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. 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. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. 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.
	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage	
Precautions for safe handling	Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapour. Avoid accidental injection. Wash thoroughly after handling. When using, do not eat, drink or smoke. Wear personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store away from direct sunlight. @ 2 - 7°C (36 - 45°F). Do not freeze. Store in original tightly closed container. Keep away from heat, sparks and open flame. Store away from incompatible materials (see Section 10 of the SDS).

#### 8. Exposure controls/personal protection

#### **Occupational exposure limits**

US. ACGIH Threshold Limit Values Components	Туре	Value	Form
Aluminium hydroxide (CAS 21645-51-2)	TWA	1 mg/m3	Respirable fraction
Formaldehyde (CAS 50-00-0)	Ceiling	0.3 ppm	
Sodium O-(ethylmercurithio)benzoat e (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	Туре	Value	Form
Aluminium hydroxide (CAS 21645-51-2)	TWA	3 mg/m3	Respirable particles.
		10 mg/m3	Total particulate.
Formaldehyde (CAS 50-00-0)	Ceiling	1.3 mg/m3	
		1 ppm	
	TWA	0.9 mg/m3	
		0.75 ppm	
Sodium O-(ethylmercurithio)benzoat e (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	Туре	Value	
Formaldehyde (CAS 50-00-0)	Ceiling	1 ppm	
	TWA	0.3 ppm	
Sodium O-(ethylmercurithio)benzoat e (CAS 54-64-8)	STEL	0.03 mg/m3	
	TWA	0.01 mg/m3	

Components	eg. 217/2006, The Workplace Type	-	value	Form
Aluminium hydroxide (CAS 21645-51-2)	TWA		1 mg/m3	Respirable fraction.
Formaldehyde (CAS 50-00-0)	Ceiling		0.3 ppm	
Sodium O-(ethylmercurithio)benzoat	STEL		0.03 mg/m3	
e (CAS 54-64-8)	TWA		0.01 mg/m3	
Canada. Ontario OELs. (Co	ntrol of Exposure to Biologica		C C	
Components	Туре	-	Value	
Formaldehyde (CAS 50-00-0)	Ceiling		1.5 ppm	
	STEL		1 ppm	
Sodium O-(ethylmercurithio)benzoat	STEL		0.03 mg/m3	
e (CAS 54-64-8)	TWA		0.01 mg/m3	
Canada. Quebec OELs. (Mi Components	nistry of Labour - Regulation Type	Respecting the Qualit	ty of the Work E Value	nvironment) Form
Aluminium hydroxide (CAS	TWA		10 mg/m3	Total dust.
21645-51-2) Formaldehyde (CAS	Ceiling		3 mg/m3	
50-00-0)			0 nnm	
Sodium O-(ethylmercurithio)benzoat e (CAS 54-64-8)	STEL		2 ppm 0.03 mg/m3	
e (CAS 54-04-0)	TWA		0.01 mg/m3	
Canada. Saskatchewan OE Components	Ls (Occupational Health and S Type		996, Table 21) Value	
Formaldehyde (CAS 50-00-0)	Ceiling		0.3 ppm	
logical limit values	No biological exposure limits	noted for the ingredier	nt(s).	
osure guidelines				
Canada - Alberta OELs: Ski	n designation			
Sodium O-(ethylmercurit Canada - British Columbia	hio)benzoate (CAS 54-64-8) <b>OELs: Skin designation</b>	Can be absorbed th	rough the skin.	
Sodium O-(ethylmercurit Canada - Manitoba OELs: S	hio)benzoate (CAS 54-64-8) Skin designation	Can be absorbed th	rough the skin.	
	hio)benzoate (CAS 54-64-8)	Can be absorbed th	rough the skin.	
	hio)benzoate (CAS 54-64-8)	Can be absorbed th	rough the skin.	
	hio)benzoate (CAS 54-64-8)	Can be absorbed th	rough the skin.	
	hio)benzoate (CAS 54-64-8)	Can be absorbed th	rough the skin.	
	hio)benzoate (CAS 54-64-8)	Can be absorbed th	rough the skin.	
ntrol banding approach	Gentamicin: Zoetis OEB 2 (c		-	n3 to < 1000ug/m3)
propriate engineering trols	Good general ventilation (typ should be matched to conditi or other engineering controls	ons. If applicable, use to maintain airborne le	process enclosur evels below recon	es, local exhaust ventilati

#### Individual protection measures, such as personal protective equipment

Eye/face protection	If contact is likely, safety glasses with side shields are recommended.
Skin protection	
Hand protection	Wear impervious gloves if skin contact is possible.
Other	Wear suitable protective clothing. Use protective clothing (uniforms, lab coats, disposable coveralls, etc.) in both production and laboratory areas.
Respiratory protection	No personal respiratory protective equipment normally required. In case of insufficient ventilation, wear suitable respiratory equipment. If airborne exposures are within or exceed the Occupational Exposure Band (OEB) range, wear an appropriate respirator with a protection factor sufficient to control exposures to the bottom of the OEB range. 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.
Thermal hazards	Not applicable.
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

9. Physical and chemical	properties
Appearance	Freeze-dried preparation + Liquid solution
Physical state	Solid, Liquid.
Form	Solid. Liquid.
Colour	Not available.
Odour	Not available.
Odour threshold	Not available.
рН	6 - 8
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 100 °C (> 212 °F)
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or exp	losive limits
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
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)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
Specific gravity	0.8 - 1.2

## 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	Contact with incompatible materials. Sunlight. High temperatures. Store at 2-7°C. Prolonged exposure to higher temperatures may adversely affect potency. Do not freeze.
Incompatible materials	Strong oxidising agents. This material can be denatured or inactivated by a variety of organic solvents, salts or heavy metals.
Hazardous decomposition products	No hazardous decomposition products are known.

## 11. Toxicological information

#### Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.	
Skin contact Formaldehyde	Prolonged skin contact may cause temporary irritation. Species: Rabbit Severity: Moderate Severe	

Eye contact Sodium O-(ethylmercurithio)	Direct contact with eyes may benzoate	cause temporary irritation. Species: Rabbit Severity: Mild
Gentamicin		Species: Rabbit Severity: Non-irritating
Formaldehyde		Species: Rabbit Severity: Severe
Ingestion	Expected to be a low indestic	on hazard.

ingestion	Expected to be a low ingestion nazard.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort. In the event of accidental injection, an allergic reaction may occur. Signs and symptoms might include skin rash, itching, redness or swelling. Respiratory reactions may be characterized by rhinitis, sneezing, scratchy throat, oral mucosal edema, laryngeal mucosal edema, coughing, shortness of breath, wheezing, and chest pain. Asthma like reactions occur with acute exposures in sensitized patients.

#### Information on toxicological effects

Acute toxicity

Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

	•	5, 1
Components	Species Test results	
ormaldehyde (CAS 50-00	-0)	
<u>Acute</u>		
Oral		
LD50	Rat	800 mg/kg
<u>Chronic</u>		
Inhalation		
LOAEL	Mouse	15 ppm, 2 years Tumours
	Rat	15 ppm, 9 days Respiratory system
		6 ppm, 2 years Tumours
entamicin (CAS 1403-66-	-3)	
<u>Acute</u>		
Intramuscular		
LD50	Mouse	167 mg/kg
	Rat	463 mg/kg
Oral		
LD50	Rat	6600 mg/kg

omponents	Species	Test results
Subcutaneous	<b>D</b> .	<i>"</i>
LD50	Rat	710 mg/kg
odium O-(ethylmercurithio)ber	nzoate (CAS 54-64-8)	
Acute		
Oral		75 4
LD50	Rat	75 mg/kg
Subcutaneous	Det	00.000
LD50	Rat	98 mg/kg
kin corrosion/irritation	-	may cause temporary irritation.
erious eye damage/eye ritation	Direct contact with eyes	may cause temporary irritation.
Eye contact Sodium O-(ethylmercu	urithio)benzoate	Species: Rabbit Severity: Mild
Gentamicin		Species: Rabbit Severity: Non-irritating
Formaldehyde		Species: Rabbit Severity: Severe
espiratory or skin sensitisat ACGIH sensitisation	lion	
FORMALDEHYDE (CA	AS 50-00-0)	Dermal sensitization
	43 50-00-0)	Respiratory sensitisation
Canada - British Columbi	ia OELs: Respiratory or ski	
Formaldehyde (CAS 5	60-00-0)	Capable of causing respiratory, dermal or conjunctival sensitization.
Canada - Manitoba OELs	Hazard: Dermal sensitizati	on
Formaldehyde (CAS 5 Canada - Manitoba OELs	0-00-0) Hazard: Respiratory sensit	Dermal sensitization tization
Formaldehyde (CAS 5		Respiratory sensitisation
	OELs Hazard Data: Sensitis	
Formaldehyde (CAS 5		Sensitiser.
Respiratory sensitisation		
Skin sensitisation		cted to cause skin sensitisation.
erm cell mutagenicity	No data available to ind mutagenic or genotoxic.	icate product or any components present at greater than 0.1% are
<b>Mutagenicity</b> Formaldehyde		In Vitro Bacterial Mutagenicity (Ames) Result: positive Species: Bacteria
		In Vitro Chromosome Aberration Result: positive Species: Rodent
		In Vitro Sister Chromatid Exchange Result: positive Species: Rodent
		In Vivo Chromosome Aberration Result: positive Species: Not specified
arcinogenicity ACGIH Carcinogens	This product is not cons	idered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Formaldehyde (CAS 50-0 Canada - Alberta OELs: Card		A2 Suspected human carcinogen.
Formaldehyde (CAS 50-00-0) Canada - Manitoba OELs: carcinogenicity		Suspected human carcinogen.
Aluminium hydroxide (CA Formaldehyde (CAS 50-0	0-0)	Not classifiable as a human carcinogen. Suspected human carcinogen.
Canada - Quebec OELs: Car	cinogen category	
Formaldehyde (CAS 50-0		Suspected carcinogenic effect in humans.
IARC Monographs. Overall E	valuation of Carcinogenicity	
Formaldehyde (CAS 50-0		1 Carcinogenic to humans.
••	gram (NTP) Report on Carcino	-
Formaldehyde (CAS 50-0		Known To Be Human Carcinogen.
Reproductive toxicity	This product is not expected to	cause reproductive or developmental effects.
<b>Developmental effects</b> Formaldehyde Gentamicin		<ul> <li>185 mg/kg/day Embryo / Fetal Development, Not teratogenic Maternal toxicity</li> <li>Species: Mouse Organ: Oral</li> <li>40 ppm Embryo / Fetal Development, Not Teratogenic Maternal Toxicity</li> <li>Species: Rat Organ: Inhalation</li> <li>75 mg/kg/day Embryo / Fetal Development, Developmental</li> </ul>
		toxicity Result: LOAEL Species: Rat Organ: Intramuscular
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not an aspiration hazard.	
Further information	The antigens included in this p inactivated preparations of mice	roduct are non-infectious. All have been prepared from modified or croorganisms.

## 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. Avoid release to the environment.

Components		Species	Test results
Formaldehyde (CAS 50-00-0	))		
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	4.3 - 7.8 mg/l, 48 hours
Fish	LC50	Striped bass (Morone saxatilis)	10.302 - 16.743 mg/l, 96 hours
ersistence and degradability	No data is	available on the degradability of this proc	luct.
oaccumulative potential	No data a	vailable.	
obility in soil	No data a	vailable.	
her adverse effects		adverse environmental effects (e.g. ozone endocrine disruption, global warming pote	depletion, photochemical ozone creation ential) are expected from this component.

## 13. Disposal considerations

Disposal instructions	Avoid release to the environment. Do not discharge into drains, water courses or onto the ground. Do not contaminate ponds, waterways or ditches with chemical or used container. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	None known. This product contains trace quantities of mercury, releases to the environment should be avoided.
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	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 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 Not applicable. Annex II of MARPOL 73/78 and

#### the IBC Code

#### 15. Regulatory information

Canadian regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Subst Not regulated.	tances Act		
Export Control List (CEPA 1	999, Schedule 3)		
	nio)benzoate (CAS 54-64-8)	Substance subject to notification or cons	ent.
Not listed.			
Ontario. Toxic Substances.	Toxic Reduction Act, 2009.	Regulation 455/09 (July 1, 2011)	
Formaldehyde (CAS 50-0 Sodium O-(ethylmercurith Precursor Control Regulatio	nio)benzoate (CAS 54-64-8)		
Not regulated.			
International regulations			
Stockholm Convention			
Not applicable. Rotterdam Convention			
Sodium O-(ethylmercurith Kyoto protocol	nio)benzoate (CAS 54-64-8)	Pesticide	
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 Chen	nical Substances (AICS)	No
Canada	Domestic Substances List (I	DSL)	No

Country(s) or region	Inventory name	On inventory (yes/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)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	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	19-April-2017
Version No.	01
Disclaimer	Zoetis Inc. believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time. The information in the sheet was written based on the best knowledge and experience currently available.
Revision information	Product and Company Identification: Synonyms Composition / Information on Ingredients: Ingredients