SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation

of the mixture

Water-based vaccine from PHARMAQ (part of Zoetis)

Registration number

Synonyms None

24-August-2018 Issue date

Version number

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Veterinary vaccine (Fish)

Uses advised against Not for human use 1.3. Details of the supplier of the safety data sheet

Company name: PHARMAQ AS (part of Zoetis)

Office address: Industrivegen 50

Skogmo Industriområde Postal address:

7863

Overhalla, Norge +47 74 28 08 00 +47 74 28 08 01

Email: customer.service@pharmaq.no

Website: http://www.pharmaq.no

Emgergency telephone

number:

Phone number:

Fax number:

Norway (Giftinformasjonen):+47 22 59 13 00

United Kingdom: 999 or 112

Italy: 112

Additional emergency

telephone number:

International CHEMTREC (24 hours): +1-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Not classified for health hazards. However, occupational exposure to the mixture or substance(s) **Hazard summary**

may cause adverse health effects.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Antigen, Formaldehyde, Water for Injection

Hazard pictograms None. None. Signal word

The mixture does not meet the criteria for classification. **Hazard statements**

Precautionary statements

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.

EUH208 - Contains Formaldehyde. May produce an allergic reaction. Supplemental label information

In the event of accidental injection, an allergic reaction may occur.

2.3. Other hazards Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Formaldehyde	<0,1	50-00-0 200-001-8	-	605-001-00-5	
Classification:		ox. 3;H331, STOT SE	n Corr. 1B;H314, Skin Sens. 53;H335, Muta. 2;H341, Car		B,D
Antigen	*	Not assigned	-	-	
Classification:	-				
Water for Injection	*	7732-18-5 231-791-2	-	-	
Classification:	-				

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

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

Composition comments

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret. The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information IF exposed or concerned: Get medical advice/attention. 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. Show this safety data sheet to the doctor in attendance.

4.1. Description of first aid measures

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 unconscious person.

4.2. Most important symptoms and effects, both 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.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Persons developing anaphylatic (allergic) reactions must receive immediate medical assistance.

SECTION 5: Firefighting measures

General fire hazardsNo unusual fire or explosion hazards noted.

5.1. Extinguishing media

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.

5.2. Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures

Move containers from fire area if you can do so without risk.

Specific methodsUse standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency

For emergency responders

personnel

Keep unnecessary personnel away. Local authorities should be advised if significant spillages

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the

cannot be contained.

SDS. In case of spills, beware of slippery floors and surfaces.

Avoid release to the environment.

6.2. Environmental precautions 6.3. Methods and material for containment and cleaning up

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

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.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapour. Avoid accidental injection. Special care should be taken to avoid accidental self injection and needle stick injury when administering the product. Fish can be slippery. Use non-slip gloves. 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.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a well-ventilated place. Store in a cool, dry place out of direct sunlight. @ 2 - 8°C (36 - 46°F). Do not freeze. Keep away from heat, sparks and open flame. Use care in handling/storage. Store away from incompatible materials (see Section 10 of the

SDS). Keep out of the reach of children.

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List, OEL Ordinance (Gw	V). BGBI. II. no. 184/2001
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Components	Туре	Value
Formaldehyde (CAS 50-00-0)	Ceiling	0,6 mg/m3
		0,5 ppm
	MAK	0,6 mg/m3
		0,5 ppm
Belgium. Exposure Limit Values.		
Components	Туре	Value
Formaldehyde (CAS 50-00-0)	STEL	0,38 mg/m3
		0,3 ppm
Rulgaria OELs Regulation No.1	on protection of workers and	inst risks of exposure to chemical agents at work

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Туре	Value
Formaldehyde (CAS 50-00-0)	STEL	2 mg/m3
,	TWA	1 mg/m3

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09 Components Value

	71	
Formaldehyde (CAS 50-00-0)	MAC	2,5 mg/m3
00 00 0,	STEL	2 ppm 2,5 mg/m3
	3122	2 ppm

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Components	Туре	Value
Formaldehyde (CAS 50-00-0)	TWA	3 mg/m3

Components	Туре	Value
		2 ppm
Czech Republic. OELs. Government D Components	ecree 361 Type	Value
Formaldehyde (CAS 50-00-0)	Ceiling	1 mg/m3
*	TWA	0,5 mg/m3
Denmark. Exposure Limit Values Components	Туре	Value
Formaldehyde (CAS 60-00-0)	Ceiling	0,4 mg/m3
	e Limits of Hazardous Sul	0,3 ppm ostances. (Annex of Regulation No. 293 of 18 Septem
2001) Components	Туре	Value
Formaldehyde (CAS 50-00-0)	Ceiling	1,2 mg/m3
,		1 ppm
	TWA	0,6 mg/m3
		0,5 ppm
Finland. Workplace Exposure Limits Components	Туре	Value
Formaldehyde (CAS 50-00-0)	Ceiling	1,2 mg/m3
		1 ppm
	TWA	0,37 mg/m3 0,3 ppm
The shall be 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\	• •
rance. Threshold Limit Values (VLEP) tor Occupational Exposi	ire to Chemicals in France. INRS ED 984
	Туре	Value
Components Formaldehyde (CAS		
Components Formaldehyde (CAS	Туре	Value
Components Formaldehyde (CAS 50-00-0) Germany. DFG MAK List (advisory OE)	Type VLE VME	Value 1 ppm
Components Formaldehyde (CAS 50-00-0) Germany. DFG MAK List (advisory OEI n the Work Area (DFG)	Type VLE VME	Value 1 ppm 0,5 ppm
Components Formaldehyde (CAS 50-00-0) Germany. DFG MAK List (advisory OE n the Work Area (DFG) Components Formaldehyde (CAS	Type VLE VME Ls). Commission for the I	Value 1 ppm 0,5 ppm nvestigation of Health Hazards of Chemical Compoun
Components Formaldehyde (CAS 60-00-0) Germany. DFG MAK List (advisory OEI on the Work Area (DFG) Components Formaldehyde (CAS 60-00-0)	Type VLE VME Ls). Commission for the li Type TWA	Value 1 ppm 0,5 ppm nvestigation of Health Hazards of Chemical Compoun Value 0,37 mg/m3 0,3 ppm
Components Formaldehyde (CAS 60-00-0) Germany. DFG MAK List (advisory OE on the Work Area (DFG) Components Formaldehyde (CAS 60-00-0) Germany. TRGS 900, Limit Values in the	Type VLE VME Ls). Commission for the li Type TWA	Value 1 ppm 0,5 ppm nvestigation of Health Hazards of Chemical Compoun Value 0,37 mg/m3 0,3 ppm
Components Formaldehyde (CAS 50-00-0) Germany. DFG MAK List (advisory OEI on the Work Area (DFG) Components Formaldehyde (CAS 50-00-0) Germany. TRGS 900, Limit Values in the Components Formaldehyde (CAS 50-00-0)	Type VLE VME Ls). Commission for the li Type TWA TWA	Value 1 ppm 0,5 ppm nvestigation of Health Hazards of Chemical Compoun Value 0,37 mg/m3 0,3 ppm kplace
Components Formaldehyde (CAS 60-00-0) Germany. DFG MAK List (advisory OEIn the Work Area (DFG) Components Formaldehyde (CAS 60-00-0) Germany. TRGS 900, Limit Values in the Components Formaldehyde (CAS 60-00-0)	Type VLE VME Ls). Commission for the li Type TWA TWA Te Ambient Air at the Worl Type AGW	Value 1 ppm 0,5 ppm nvestigation of Health Hazards of Chemical Compoun Value 0,37 mg/m3 0,3 ppm kplace Value
Components Formaldehyde (CAS 10-00-0) Germany. DFG MAK List (advisory OEIn the Work Area (DFG) Components Formaldehyde (CAS 10-00-0) Germany. TRGS 900, Limit Values in the Components Formaldehyde (CAS 10-00-0) Greece. OELs (Decree No. 90/1999, as	Type VLE VME Ls). Commission for the li Type TWA TWA Te Ambient Air at the Worl Type AGW	Value 1 ppm 0,5 ppm nvestigation of Health Hazards of Chemical Compount Value 0,37 mg/m3 0,3 ppm kplace Value 0,37 mg/m3
Components Formaldehyde (CAS 60-00-0) Germany. DFG MAK List (advisory OEIn the Work Area (DFG) Components Formaldehyde (CAS 60-00-0) Germany. TRGS 900, Limit Values in the Components Formaldehyde (CAS 60-00-0) Greece. OELs (Decree No. 90/1999, as Components Formaldehyde (CAS 60-00-0)	Type VLE VME Ls). Commission for the li Type TWA ne Ambient Air at the Worl Type AGW amended)	Value 1 ppm 0,5 ppm nvestigation of Health Hazards of Chemical Compount Value 0,37 mg/m3 0,3 ppm kplace Value 0,37 mg/m3 0,3 ppm Value 2,5 mg/m3
Components Formaldehyde (CAS i0-00-0) Germany. DFG MAK List (advisory OE in the Work Area (DFG) Components Formaldehyde (CAS i0-00-0) Germany. TRGS 900, Limit Values in the Components Formaldehyde (CAS i0-00-0) Greece. OELs (Decree No. 90/1999, as Components Formaldehyde (CAS i0-00-0)	Type VLE VME Ls). Commission for the li Type TWA TWA Type AGW amended) Type STEL	Value 1 ppm 0,5 ppm nvestigation of Health Hazards of Chemical Compount Value 0,37 mg/m3 0,3 ppm kplace Value 0,37 mg/m3 0,3 ppm Value 2,5 mg/m3 2 ppm
Components Formaldehyde (CAS 60-00-0) Germany. DFG MAK List (advisory OEIn the Work Area (DFG) Components Formaldehyde (CAS 60-00-0) Germany. TRGS 900, Limit Values in the Components Formaldehyde (CAS 60-00-0) Greece. OELs (Decree No. 90/1999, as Components Formaldehyde (CAS 60-00-0)	Type VLE VME Ls). Commission for the li Type TWA TWA Type AGW amended) Type	Value 1 ppm 0,5 ppm nvestigation of Health Hazards of Chemical Compount Value 0,37 mg/m3 0,3 ppm kplace Value 0,37 mg/m3 0,3 ppm Value 2,5 mg/m3 2 ppm 2,5 mg/m3
Components Formaldehyde (CAS 50-00-0) Germany. DFG MAK List (advisory OEIn the Work Area (DFG) Components Formaldehyde (CAS 50-00-0) Germany. TRGS 900, Limit Values in the Components Formaldehyde (CAS 50-00-0) Greece. OELs (Decree No. 90/1999, as Components Formaldehyde (CAS 50-00-0)	Type VLE VME Ls). Commission for the li Type TWA TWA Type AGW amended) Type STEL TWA	Value 1 ppm 0,5 ppm nvestigation of Health Hazards of Chemical Compount Value 0,37 mg/m3 0,3 ppm kplace Value 0,37 mg/m3 0,3 ppm Value 2,5 mg/m3 2 ppm 2,5 mg/m3 2 ppm 2,5 mg/m3 2 ppm
Components Formaldehyde (CAS 50-00-0) Germany. DFG MAK List (advisory OEIn the Work Area (DFG) Components Formaldehyde (CAS 50-00-0) Germany. TRGS 900, Limit Values in the Components Formaldehyde (CAS 50-00-0) Greece. OELs (Decree No. 90/1999, as Components Formaldehyde (CAS 50-00-0) Greece. OELs (Decree No. 90/1999, as Components Formaldehyde (CAS 50-00-0)	Type VLE VME Ls). Commission for the li Type TWA TWA Type AGW amended) Type STEL TWA	Value 1 ppm 0,5 ppm nvestigation of Health Hazards of Chemical Compount Value 0,37 mg/m3 0,3 ppm kplace Value 0,37 mg/m3 0,3 ppm Value 2,5 mg/m3 2 ppm 2,5 mg/m3 2 ppm 2,5 mg/m3 2 ppm
Components Formaldehyde (CAS 50-00-0)	Type VLE VME Ls). Commission for the li Type TWA TWA Type AGW amended) Type STEL TWA sical Safety of Workplaces	Value 1 ppm 0,5 ppm nvestigation of Health Hazards of Chemical Compount Value 0,37 mg/m3 0,3 ppm kplace Value 0,37 mg/m3 0,3 ppm Value 2,5 mg/m3 2 ppm 2,5 mg/m3 2 ppm

Components	Туре	Value
Formaldehyde (CAS 50-00-0)	STEL	1,2 mg/m3
		1 ppm
	TWA	0,4 mg/m3
		0,3 ppm
reland. Occupational Exposure Limits		
Components	Туре	Value
Formaldehyde (CAS 50-00-0)	STEL	0,4 ppm
	TWA	0,2 ppm
taly. Occupational Exposure Limits Components	Туре	Value
Formaldehyde (CAS 50-00-0)	STEL	0,3 ppm
,	TWA	0,1 ppm
Latvia. OELs. Occupational exposure limi Components	t values of chemical substances i Type	n work environment Value
Formaldehyde (CAS 50-00-0)	TWA	0,5 mg/m3
Lithuania. OELs. Limit Values for Chemic Components	•	ents Value
<u> </u>	Туре	
Formaldehyde (CAS 50-00-0)	Ceiling	1 mg/m3
	TWA	1,2 ppm 0,6 mg/m3
	1 **/ **	0,5 ppm
Netherlands. OELs (binding) Components	Туре	Value
•	STEL	
Formaldehyde (CAS 50-00-0)	SIEL	0,5 mg/m3
	TWA	0,15 mg/m3
Norway. Administrative Norms for Contan Components	ninants in the Workplace Type	Value
Formaldehyde (CAS	Ceiling	1,2 mg/m3
50-00-0)	•	
	TIV	1 ppm
	TLV	0,6 mg/m3
		0.5 nnm
	mum permissible concentrations	0,5 ppm and intensities of harmful factors in the wo
environment, Annex 1	mum permissible concentrations	• • •
environment, Annex 1 Components Formaldehyde (CAS	•	and intensities of harmful factors in the wo
environment, Annex 1 Components Formaldehyde (CAS	Туре	and intensities of harmful factors in the wo
environment, Annex 1 Components Formaldehyde (CAS 50-00-0) Portugal. VLEs. Norm on occupational ex	Type STEL TWA	and intensities of harmful factors in the wo Value 1 mg/m3 0,5 mg/m3
Poland. MACs. Regulation regarding max environment, Annex 1 Components Formaldehyde (CAS 50-00-0) Portugal. VLEs. Norm on occupational ex Components Formaldehyde (CAS 50-00-0)	Type STEL TWA posure to chemical agents (NP 17	and intensities of harmful factors in the work Value 1 mg/m3 0,5 mg/m3 96)
environment, Annex 1 Components Formaldehyde (CAS 50-00-0) Portugal. VLEs. Norm on occupational ex Components Formaldehyde (CAS 50-00-0) Romania. OELs. Protection of workers fro	Type STEL TWA posure to chemical agents (NP 17 Type Ceiling	and intensities of harmful factors in the wo Value 1 mg/m3 0,5 mg/m3 96) Value 0,3 ppm
environment, Annex 1 Components Formaldehyde (CAS 50-00-0) Portugal. VLEs. Norm on occupational ex Components Formaldehyde (CAS 50-00-0) Romania. OELs. Protection of workers fro Components Formaldehyde (CAS	Type STEL TWA posure to chemical agents (NP 17 Type Ceiling m exposure to chemical agents a	and intensities of harmful factors in the workplace
environment, Annex 1 Components Formaldehyde (CAS 50-00-0) Portugal. VLEs. Norm on occupational ex Components Formaldehyde (CAS 50-00-0) Romania. OELs. Protection of workers fro Components	Type STEL TWA posure to chemical agents (NP 17 Type Ceiling m exposure to chemical agents a Type	and intensities of harmful factors in the wo Value 1 mg/m3 0,5 mg/m3 96) Value 0,3 ppm t the workplace Value 3 mg/m3
environment, Annex 1 Components Formaldehyde (CAS 50-00-0) Portugal. VLEs. Norm on occupational ex Components Formaldehyde (CAS 50-00-0) Romania. OELs. Protection of workers fro Components Formaldehyde (CAS	Type STEL TWA posure to chemical agents (NP 17 Type Ceiling m exposure to chemical agents a Type	and intensities of harmful factors in the wo Value 1 mg/m3 0,5 mg/m3 96) Value 0,3 ppm t the workplace Value

Components	Туре	Value
Formaldehyde (CAS 50-00-0)	STEL	0,74 mg/m3
		0,6 ppm
	TWA	0,37 mg/m3
		0,3 ppm
Slovenia. OELs. Regulatio Official Gazette of the Re		gainst risks due to exposure to chemicals while worki
Components	Type	Value
Formaldehyde (CAS	TWA	0,62 mg/m3
50-00-0)		0,5 ppm
Snain Carcinogens and M	Mutagens with Limit Values (Table 2)	5,5 pp
Components	Type	Value
Formaldehyde (CAS	TWA	0,37 mg/m3
50-00-0)		0,3 ppm
Sweden. OELs. Work Env	ironment Authority (AV), Occupational E	exposure Limit Values (AFS 2015:7)
Components	Туре	Value
Formaldehyde (CAS 50-00-0)	Ceiling	0,74 mg/m3
,		0,6 ppm
	TWA	0,37 mg/m3
		0,3 ppm
Switzerland. SUVA Grenz	werte am Arbeitsplatz	
Components	Туре	Value
Formaldehyde (CAS 50-00-0)	STEL	0,74 mg/m3
,		0,6 ppm
	TWA	0,37 mg/m3
		0,3 ppm
UK. EH40 Workplace Expo	osure Limits (WELs)	
Components	Туре	Value
Formaldehyde (CAS 50-00-0)	STEL	2,5 mg/m3
,		2 ppm
	TWA	2,5 mg/m3
		2 ppm
ogical limit values	No biological exposure limits noted for	the ingredient(s).
ommended monitoring edures	Follow standard monitoring procedures	
ved no effect levels ELs)	Not available.	
.LJ		
	Not evallable	

Bio

Rec

pro

Der

(DN

Predicted no effect concentrations (PNECs) Not available.

Exposure guidelines

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Formaldehyde (CAS 50-00-0)

Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering controls

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. General ventilation normally adequate.

Individual protection measures, such as personal protective equipment

General information

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. CEN: European Committee for Standardization (Comité Européen de Normalisation).

If contact is likely, safety glasses with side shields are recommended. (Ref: EN 166). Eye/face protection

Skin protection

Wear appropriate chemical resistant gloves. Neoprene, butyl rubber, nitrile or Viton gloves are - Hand protection

recommended. (Ref: BS-EN 374, BS-EN 420).

- Other Wear suitable protective clothing. Use protective clothing (uniforms, lab coats, disposable

coveralls, etc.) in both production and laboratory areas.

No personal respiratory protective equipment normally required. In case of insufficient ventilation, Respiratory protection

wear suitable respiratory equipment. (Ref: EN 143).

Not applicable. Thermal hazards

Hygiene measures 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.

Environmental exposure

controls

Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Aqueous suspension.

Physical state Liquid. **Form** Liquid.

Colour Light yellow. - Brown.

Odour Characteristic. Not available. **Odour threshold** pН Not available. Not available. Melting point/freezing point Initial boiling point and boiling Not available.

range

Not available. Flash point **Evaporation rate** Not available. Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit - upper

Not available.

(%)

Not available. Vapour pressure Not available. Vapour density Relative density Not available.

Solubility(ies)

Soluble Solubility (water)

Partition coefficient

Not available.

(n-octanol/water)

Auto-ignition temperature Not available. Not available. **Decomposition temperature** Viscosity Not available. **Explosive properties** Not explosive. Oxidising properties Not oxidising.

9.2. Other information No relevant additional information available.

SECTION 10: Stability and reactivity

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

10.2. Chemical stability Material is stable under normal conditions.

10.3. Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid Contact with incompatible materials. Sunlight. Do not allow material to freeze.

10.5. Incompatible materials Strong oxidising agents.

10.6. Hazardous No hazardous decomposition products are known.

decomposition products

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

Skin contact Prolonged skin contact may cause temporary irritation. Frequent or prolonged contact may defat

and dry the skin, leading to discomfort and dermatitis. In the event of accidental injection, an

allergic reaction may occur.

Formaldehyde Species: Rabbit

Severity: Moderate Severe

Eve contact Direct contact with eyes may cause temporary irritation.

Formaldehyde Species: Rabbit Severity: Severe

May be harmful if swallowed. However, ingestion is not likely to be a primary route of occupational

exposure.

Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, **Symptoms**

> 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.

11.1. Information on toxicological effects

In the event of accidental injection, an allergic reaction may occur. **Acute toxicity**

Components **Species Test results**

Formaldehyde (CAS 50-00-0)

Acute

Oral

Ingestion

LD50 Rat 800 mg/kg

Chronic Inhalation

LOAEL Mouse 15 ppm, 2 years Tumours

> Rat 15 ppm, 9 days Respiratory system

> > 6 ppm, 2 years Tumours

100 mg/kg

Skin corrosion/irritation

Serious eye damage/eye irritation

Skin sensitisation

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

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

Eye contact

Formaldehyde Species: Rabbit Severity: Severe

Based on available data, the classification criteria are not met. In the event of accidental injection, Respiratory sensitisation an allergic reaction may occur.

> Based on available data, the classification criteria are not met. In the event of accidental injection, an allergic reaction may occur. This product contains formaldehyde which is considered to be a

skin sensitizer.

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

Mutagenicity 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

3575 Version #: 01 Issue date: 24-August-2018

Mutagenicity Formaldehyde

dehyde In Vivo Chromosome Aberration

Result: positive Species: Not specified

Carcinogenicity

Based on available data, the classification criteria are not met. Contains a substance which may

cause cancer by inhalation. No known carcinogens are present at greater than 0.1%.

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Formaldehyde (CAS 50-00-0)

IARC Monographs. Overall Evaluation of Carcinogenicity

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

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Formaldehyde (CAS 50-00-0) Carcinogenic, Category 2.

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

Developmental effects

Formaldehyde 185 mg/kg/day Embryo / Fetal Development, Not teratogenic

Maternal toxicity Species: Mouse Organ: Oral

40 ppm Embryo / Fetal Development, Not Teratogenic

Maternal Toxicity Species: Rat Organ: Inhalation

Specific target organ toxicity - single exposure

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

Specific target organ toxicity -

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

repeated exposure

Aspiration hazard Due to partial or complete lack of data the classification is not possible.

Mixture versus substance

information

No information available

Other information The antigens included in this product are non-infectious. All have been prepared from killed or

inactivated preparations of microorganisms.

SECTION 12: Ecological information

12.1. ToxicityBased on available data, the classification criteria are not met for hazardous to the aquatic

environment. 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

12.2. Persistence and

degradability

No data is available on the degradability of this product.

12.3. Bioaccumulative potential No data available for this product.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT

Not a PBT or vPvB substance or mixture.

assessment

and vPvB

12.6. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

12.7. Additional information

Estonia Dangerous substances in groundwater Data

Formaldehyde (CAS 50-00-0) Pesticides (total) 0,5 UG/L

Pesticides (total) 5 UG/L

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Estonia Dangerous substances in soil Data

Formaldehyde (CAS 50-00-0)

Synthetic pesticides (total of active substances) 0,5 mg/kg Synthetic pesticides (total of active substances) 20 mg/kg Synthetic pesticides (total of active substances) 5 mg/kg

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste 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.

EU waste codeThe Waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Disposal methods/information Avoid release to the environment. Do not discharge into drains, water courses or onto the ground.

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.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

14.7. Transport in bulk Not established. according to Annex II of Marpol

and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

 $Regulation \ (EU) \ No. \ 649/2012 \ concerning \ the \ export \ and \ import \ of \ dangerous \ chemicals, \ Annex \ I, \ Part \ 2 \ as \ amended$

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

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Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended Formaldehyde (CAS 50-00-0)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Formaldehyde (CAS 50-00-0)

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Formaldehyde (CAS 50-00-0)

Other regulations The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP

Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation

(EC) No 1907/2006, as amended.

National regulations Follow national regulation for work with chemical agents.

15.2. Chemical safety

assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations Not available.

References Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under Sections 2 to 15

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction. H318 Causes serious eye damage.

H331 Toxic if inhaled.

H335 May cause respiratory irritation. H341 Suspected of causing genetic defects.

H350 May cause cancer.

H411 Toxic to aquatic life with long lasting effects.

Revision information None.

Training information Follow training instructions when handling this material.

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.

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