

SAFETY DATA SHEET

Formaldehyde 4% Phosphate Buffered

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

1.1. Product identifier

▼ Trade name

Formaldehyde 4% Phosphate Buffered

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

Relevant identified uses of the substance or mixture

Preservation agent

Relevant identified uses of the substance or mixture (REACH)

No special

▼ Uses advised against

No special

1.3. Details of the supplier of the safety data sheet

Company and address

Solveco AB

Tallbacksgatan 10

S-195 72 Rosersberg

Sverige

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<http://www.solveco.se>

Contact person

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SDS date

2020-06-02

SDS Version

2.0

Date of previous version

2019-09-05 (1.0)

▼ 1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Sens. 1; H317, May cause an allergic skin reaction.

Muta. 2; H341, Suspected of causing genetic defects.

Carc. 1B; H350, May cause cancer.

2.2. Label elements

Hazard pictogram(s)


Signal word

Danger

Hazard statement(s)

May cause an allergic skin reaction.
 Suspected of causing genetic defects.
 May cause cancer.

Safety statement(s)
▼ General

-

▼ Prevention

P201, Obtain special instructions before use.
 P280, Wear protective gloves/protective clothing/eye protection/face protection.
 P261, Avoid breathing mist/vapour.

Response

P308+P313, IF exposed or concerned: Get medical advice/attention.
 P333+P313, If skin irritation or rash occurs: Get medical advice/attention.

▼ Storage

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Disposal

P501, Dispose of contents/container to an approved waste disposal plant.

▼ Hazardous substances

Formaldehyde

2.3. Other hazards
Additional labelling

Not applicable

▼ Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/information on ingredients
▼ 3.2 Mixtures

Product/Ingredient name	Identifiers	% w/w	Classification	Note
Formaldehyde	CAS No.: 50-00-0 EC No.: 200-001-8 REACH No.: Index No.: 605-001-00-5	4%	Acute Tox. 3, H311 Skin Corr. 1B, H314 (SCL: 25.00%) Skin Sens. 1, H317 (SCL: 0.20%) STOT SE 3, H336 (SCL: 5.00%) Muta. 2, H341 Carc. 1B, H350 Acute Tox. 3, H331 Acute Tox. 3, H301	
Methanol	CAS No.: 67-56-1 EC No.: 200-659-6 REACH No.: Index No.: 603-001-00-X	< 0,2%	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370 Flam. Liq. 2, H225	Annex XVII, EU

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

EU: European occupational exposure limit

Annex XVII: The chemical substance is subject to REACH restrictions, REACH annex XVII.

SECTION 4: First aid measures

▼ 4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet.

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

▼ Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

▼ Eye contact

Upon irritation of the eye: Remove contact lenses and open eyes widely. Flush eyes with water or saline water(20-30°C) for at least 5 minutes. Seek medical assistance and continue flushing during transport.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Not applicable

4.2. Most important symptoms and effects, both acute and delayed

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact.

Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

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

IF exposed or concerned:

Get immediate medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

▼ Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Waterjets should not be used, since they can spread the fire.

▼ 5.2. Special hazards arising from the substance or mixture

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Fire will result in dense black smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

Carbon oxides (CO / CO₂).

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.
Avoid inhalation of vapours from spilled material.

▼ 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section on "Disposal considerations" in regard of handling of waste.

See section on 'Exposure controls/personal protection' for protective measures.

SECTION 7: Handling and storage

▼ 7.1. Precautions for safe handling

Smoking, drinking and consumption of food is not allowed in the work area.

See section on 'Exposure controls/personal protection' for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original container.

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Store locked up. A sign warning of toxic materials shall be affixed the room and cupboard containing the product(s).

Storage temperature

Room temperature 18 to 23°C

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

▼ 8.1. Control parameters

—
Formaldehyde

Long term exposure limit (8 hours): 2 ppm

Long term exposure limit (8 hours): 2,5 mg/m³

Short term exposure limit (15 minutes): 2 ppm

Short term exposure limit (15 minutes): 2,5 mg/m³

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Methanol

Long term exposure limit (8 hours): 200 ppm

Long term exposure limit (8 hours): 266 mg/m³

Short term exposure limit (15 minutes): 250 ppm

Short term exposure limit (15 minutes): 333 mg/m³

Annotations:

Sk = Can be absorbed through the skin and lead to systemic toxicity.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
EH40/2005 Workplace exposure limits (Fourth Edition 2020)

DNEL

Product/Ingredient name	DNEL	Route of exposure	Duration
Methanol	40 mg/kg BW/d	Dermal	Long term – Systemic effects - Workers
Methanol	8 mg/kg BW/d	Dermal	Long term – Systemic effects - General population
Methanol	40 mg/kg BW/d	Dermal	Long term – Systemic effects - Workers
Methanol	8 mg/kg BW/d	Dermal	Short term – Systemic effects - General population
Methanol	8 mg/kg BW/d	Oral	Short term – Systemic effects - General population
Methanol	8 mg/kg BW/d	Oral	Long term – Systemic effects - General population
Methanol	260 mg/m ³	Inhalation	Short term – Local effects - Workers
Methanol	260 mg/m ³	Inhalation	Short term – Systemic effects - Workers
Methanol	50 mg/m ³	Inhalation	Long term – Local effects - General population
Methanol	50 mg/m ³	Inhalation	Short term – Local effects - General population
Methanol	50 mg/m ³	Inhalation	Short term – Systemic effects - General population
Methanol	260 mg/m ³	Inhalation	Long term – Local effects - Workers
Methanol	260 mg/m ³	Inhalation	Long term – Systemic effects - Workers
Methanol	50 mg/m ³	Inhalation	Long term – Systemic effects - General population

▼ PNEC

Product/Ingredient name	PNEC	Route of exposure	Duration of Exposure
Methanol	570,4 mg/kg	Freshwater sediment	No data available
Methanol	154 mg/l	Freshwater	No data available
Methanol	23,5 mg/kg	Soil	No data available
Methanol	15,4 mg/l	Marine water	No data available

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, eating and drinking are not allowed in the work premises

▼ Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above). Installation of an exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and -showers are clearly marked.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure


Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment


Generally

Use only CE marked protective equipment.



Respiratory Equipment

Work situation	Recommended Filter type	Class	Colour	Standards	
If ventilation at the work place is insufficient, use a half- or full mask with an appropriate filter or an air-supplied breathing apparatus.	A+	-	Brown/olivegreen	EN14387	


Skin protection

Work situation	Recommended	Type/Category	Standards	
	Dedicated work clothing should be worn.	-	-	

▼ Hand protection

Work situation	Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
	Nitrile	-	-	EN374-2	
	Butyl	-	-	EN374-2, EN374-3, EN388, EN421	

Eye protection

Work situation	Recommended	Standards	
	Use face protection or safety glasses with side shields.	EN166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form

Liquid

Colour

Colourless

Odour

Sharp/pungent

Odour threshold (ppm)

0,05-1

pH

7.0

Density (g/cm³)

1.017

▼ Viscosity

Testing not relevant or not possible due to nature of the product.

Phase changes

▼ Melting point (°C)

Testing not relevant or not possible due to nature of the product.

Boiling point (°C)

~ 100 °C

Vapour pressure

0.19 kPa (20.00 °C)

▼ Vapour density

Testing not relevant or not possible due to nature of the product.

▼ Decomposition temperature (°C)

Testing not relevant or not possible due to nature of the product.

▼ Evaporation rate (n-butylacetate = 100)

Testing not relevant or not possible due to nature of the product.

Data on fire and explosion hazards

▼ Flash point (°C)

Testing not relevant or not possible due to nature of the product.

▼ Ignition (°C)

Testing not relevant or not possible due to nature of the product.

▼ Auto flammability (°C)

Testing not relevant or not possible due to nature of the product.

▼ Explosion limits (% v/v)

Testing not relevant or not possible due to nature of the product.

▼ Explosive properties

Testing not relevant or not possible due to nature of the product.

▼ Oxidizing properties

Testing not relevant or not possible due to nature of the product.

Solubility

Solubility in water

Soluble

▼ n-octanol/water coefficient

Testing not relevant or not possible due to nature of the product.

▼ Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in the section "Handling and storage".

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

No special

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

▼ Acute toxicity

Product/Ingredient name	Species	Test	Route of exposure	Result
Formaldehyde	Rat	LD50	Oral	250,00 mg/kg
Formaldehyde	-	LD50	Dermal	675,00 mg/kg
Formaldehyde	-	LC50	Inhalation	7,49 mg/l
Methanol	Rabbit	LD50	Dermal	15800 mg/kgbw
Methanol	Mouse	LC50 (2 hours)	Inhalation	50000 mg/m ³
Methanol	Rat	LC50 (4 hours)	Inhalation	85 mg/l

▼ Skin corrosion/irritation

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

▼ Serious eye damage/irritation

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

▼ Respiratory or skin sensitisation

May cause an allergic skin reaction.



This product contains substances, which may trigger allergic reaction upon dermal contact.

Germ cell mutagenicity

Suspected of causing genetic defects.

Carcinogenicity

May cause cancer.

▼ Reproductive toxicity

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

▼ STOT-single exposure

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

▼ STOT-repeated exposure

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

▼ Aspiration hazard

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

Long term effects

Carcinogenic effects: This product contains substances considered or proven to be carcinogenic. The carcinogenic effects may be triggered subsequent to exposure through inhalation, skin contact or ingestion.

▼ Other information

No special

SECTION 12: Ecological information

▼ 12.1. Toxicity

Product/Ingredient name	Species	Test	Duration	Result
Formaldehyde	Fish (Brachydanio rerio)	LC50	96 hours	41,00 mg/l
Formaldehyde	Algae (Desmodesmus subspicatus)	IC50	72 hours	5,80 mg/l
Formaldehyde	Daphnia (Daphnia pulex)	EC50	48 hours	5,80 mg/l
Methanol	Algae	IC50	72 hours	441 mg/l
Methanol	Fish (Lepomis macrochirus)	LC50	96 hours	15400 mg/l
Methanol	Daphnia (Daphnia magna)	EC50	48 hours	24500 mg/l

▼ 12.2. Persistence and degradability

Product/Ingredient name	Biodegradability	Test	Result
Formaldehyde	Yes	BOD5/COD	0,6
Methanol	Yes	BOD5/COD	0,4 - 0,8

▼ 12.3. Bioaccumulative potential

Product/Ingredient name	Potential bioaccumulation	LogPow	BCF
Formaldehyde	No	No data available	0.4000000
Methanol	No data available	-0,64	1.0000000

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Other adverse effects

No special

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

EWC code

Not applicable

Specific labelling

Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 - 14.4

Not dangerous goods according to ADR, IATA and IMDG.

▼ ADR/RID

UN no.	Proper Shipping Name	Class	PG	Tunnel restriction code
	The product is not covered by international or EU regulations regarding the transport of dangerous goods (IMDG, ICAO / IATA, ADR / RID).			

▼IMDG

UN no.	Proper Shipping Name	Class	PG	EmS
	The product is not covered by international or EU regulations regarding the transport of dangerous goods (IMDG, ICAO / IATA, ADR / RID).			

▼IATA

Not applicable

▼"MARINE POLLUTANT"

No

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

▼ 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

▼ Restrictions for application

Industrial use only.

People under the age of 18 shall not be exposed to this product.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

▼ Demands for specific education

No specific requirements

SEVESO - Categories / dangerous substances



Formaldehyde

Methanol



▼ Additional information

Not applicable

▼ Sources

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

Council Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.

The Control of Major Accident Hazards (COMAH) Regulations 2015.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP).

Regulation (EC) 1907/2006 (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

▼ Full text of H-phrases as mentioned in section 3

- H311, Toxic in contact with skin.
- H314, Causes severe skin burns and eye damage.
- H317, May cause an allergic skin reaction.
- H336, May cause drowsiness or dizziness.
- H341, Suspected of causing genetic defects.
- H350, May cause cancer.
- H331, Toxic if inhaled.
- H301, Toxic if swallowed.
- H370, Causes damage to organs [⌘].
- H225, Highly flammable liquid and vapour.

Abbreviations and acronyms

- ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- CAS = Chemical Abstracts Service
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- CSA = Chemical Safety Assessment
- CSR = Chemical Safety Report
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EINECS = European Inventory of Existing Commercial chemical Substances
- ES = Exposure Scenario
- EUH statement = CLP-specific Hazard statement
- EWC = European Waste Catalogue
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IARC = International Agency for Research on Cancer (IARC)
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- OECD = Organisation for Economic Co-operation and Development
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
- RRN = REACH Registration Number
- SVHC = Substances of Very High Concern
- STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
- STOT-SE = Specific Target Organ Toxicity - Single Exposure
- TWA = Time weighted average
- UN = United Nations
- UVCB = Complex hydrocarbon substance
- VOC = Volatile Organic Compound
- vPvB = Very Persistent and Very Bioaccumulative

Additional information

In accordance with Regulation (EC) No. 1272/2008 (CLP) the evaluation of the classification of the mixture is based on:

The classification of the mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

The safety data sheet is validated by

Habib Hourani

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.