

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### SECTION 1: Identification

- 1.1 Product identifier** RS4396
- Trade name **Bouin's Fluid**
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**
- Relevant identified uses general use
- Uses advised against Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin.
- 1.3 Details of the supplier of the safety data sheet**
- Avantik  
19 Chapin Rd.  
Pine Brook NJ 07058  
United States
- Telephone: 800-783-9424  
e-mail: info@avantik-us.com  
Website: avantik-us.com
- 1.4 Emergency telephone number**
- Emergency information service CHEMTREC 800-424-9300 (USA & Canada), CHEMTREC 703-527-3887 (International), Non-transport 972-436-1010 (USA)  
This number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

### SECTION 2: Hazard(s) identification

#### 2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.1O	acute toxicity (oral)	4	Acute Tox. 4	H302
A.1D	acute toxicity (dermal)	4	Acute Tox. 4	H312
A.1I	acute toxicity (inhal.)	3	Acute Tox. 3	H331
A.2	skin corrosion/irritation	1	Skin Corr. 1	H314
A.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
A.4S	skin sensitization	1	Skin Sens. 1	H317
A.5	germ cell mutagenicity	2	Muta. 2	H341
A.6	carcinogenicity	1A	Carc. 1A	H350
A.8	specific target organ toxicity - single exposure	2	STOT SE 2	H371
B.6	flammable liquid	4	Flam. Liq. 4	H227

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis. Immediate effects can be expected after short-term exposure. The product is combustible and can be ignited by potential ignition sources.

### 2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word                      danger

- Pictograms

GHS05, GHS06,  
GHS07, GHS08



- Hazard statements

H227	Combustible liquid.
H302+H312	Harmful if swallowed or in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H371	May cause damage to organs.

- Precautionary statements

P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P260	Do not breathe dusts or mists.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/eye protection/face protection.
P301+P330+P331	If swallowed: Rinse mouth. Do NOT induce vomiting.
P302+P352	If on skin: Wash with plenty of water.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling                      formaldehyde, methanol, Acetic acid 100%

### 2.3 Other hazards

This material is combustible, but will not ignite readily.

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

Hazards not otherwise classified

Harmful to aquatic life (GHS category 3: aquatic toxicity - acute).

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0.1\%$ .

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0.1\%$ .




### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Not relevant (mixture)

#### 3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
formaldehyde	CAS No 50-00-0	10 – < 25	Acute Tox. 4 / H302 Acute Tox. 3 / H311 Acute Tox. 2 / H330 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Skin Sens. 1 / H317 Muta. 2 / H341 Carc. 1A / H350 STOT SE 3 / H335 Flam. Liq. 4 / H227	
Acetic acid 100%	CAS No 64-19-7	5 – < 10	Skin Corr. 1A / H314 Eye Dam. 1 / H318 Flam. Liq. 3 / H226	
methanol	CAS No 67-56-1	1 – < 5	Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 3 / H331 STOT SE 1 / H370 Flam. Liq. 2 / H225	

For full text of abbreviations: see SECTION 16.

### SECTION 4: First-aid measures

#### 4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### **4.2 Most important symptoms and effects, both acute and delayed**

Symptoms and effects are not known to date.

#### **4.3 Indication of any immediate medical attention and special treatment needed**

none

### **SECTION 5: Fire-fighting measures**

#### **5.1 Extinguishing media**

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

Unsuitable extinguishing media

Water jet

#### **5.2 Special hazards arising from the substance or mixture**

In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### **5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

### **SECTION 6: Accidental release measures**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

#### **6.2 Environmental precautions**

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

#### **6.3 Methods and material for containment and cleaning up**

Advice on how to contain a spill

Covering of drains

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

### Appropriate containment techniques

Use of adsorbent materials.

### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

## 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Recommendations

#### - Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

#### - Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapors are heavier than air, spread along floors and form explosive mixtures with air. Vapors may form explosive mixtures with air.

#### - Handling of incompatible substances or mixtures

#### - Keep away from

Caustic solutions

#### Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Managing of associated risks

#### - Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

#### - Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

#### Control of the effects

#### Protect against external exposure, such as

frost

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### - Ventilation requirements

Keep any substance that emits harmful vapors or gases in a place that allows these to be permanently extracted. Use local and general ventilation. Ground/bond container and receiving equipment.

### - Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

## 7.3 Specific end use(s)

See section 16 for a general overview.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)											
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	formaldehyde	50-00-0	PEL (CA)	0.75		2					Cal/ OSHA PEL
US	formaldehyde	50-00-0	TLV®	0.1		0.3					ACGIH® 2023
US	formaldehyde	50-00-0	PEL	0.75		2					29 CFR 1910.10 00
US	formaldehyde	50-00-0	REL	0.016 (10 h)				0.1 (15 min)		appx-A	NIOSH REL
US	formalin	50-00-0	REL	0.016 (10 h)				0.1 (15 min)		HCHO, appx-A	NIOSH REL
US	acetic acid	64-19-7	PEL (CA)	10	25	15	37	40			Cal/ OSHA PEL
US	acetic acid	64-19-7	REL	10 (10 h)	25 (10 h)	15	37				NIOSH REL
US	acetic acid	64-19-7	TLV®	10		15					ACGIH® 2023
US	acetic acid	64-19-7	PEL	10	25						29 CFR 1910.10 00
US	methanol	67-56-1	TLV®	200		250				H	ACGIH® 2023
US	methyl alcohol	67-56-1	REL	200 (10 h)	260 (10 h)	250	325				NIOSH REL
US	methyl alcohol	67-56-1	PEL	200	260						29 CFR 1910.10 00
US	methyl alcohol (methanol)	67-56-1	PEL (CA)	200	260	250	325	1,000			Cal/ OSHA PEL

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	picric acid	88-89-1	REL		0.1 (10 h)		0.3				NIOSH REL
US	picric acid	88-89-1	TLV®		0.1						ACGIH® 2023
US	picric acid	88-89-1	PEL		0.1						29 CFR 1910.1000
US	picric acid (2,4,6-trinitrophenol)	88-89-1	PEL (CA)		0.1						Cal/ OSHA PEL

#### Notation

appx-A

Ceiling-C

H

HCHO

STEL

TWA

NIOSH Potential Occupational Carcinogen (Appendix A)

ceiling value is a limit value above which exposure should not occur absorbed through the skin

calculated as HCHO (formaldehyde)

short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours

time-weighted average (unless otherwise specified)

### Biological limit values

Country	Name of agent	Parameter	Notation	Identifier	Value	Source
US	methanol	methanol		BEI®	15 mg/l	ACGIH® 2023

### Relevant DNELs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
formaldehyde	50-00-0	DNEL	9 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
formaldehyde	50-00-0	DNEL	0.375 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
formaldehyde	50-00-0	DNEL	0.75 mg/m³	human, inhalatory	worker (industry)	acute - local effects
formaldehyde	50-00-0	DNEL	240 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
formaldehyde	50-00-0	DNEL	37 µg/cm²	human, dermal	worker (industry)	chronic - local effects
methanol	67-56-1	DNEL	260 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
methanol	67-56-1	DNEL	260 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
methanol	67-56-1	DNEL	260 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
methanol	67-56-1	DNEL	260 mg/m³	human, inhalatory	worker (industry)	acute - local effects
methanol	67-56-1	DNEL	40 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
methanol	67-56-1	DNEL	40 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
formaldehyde	50-00-0	PNEC	0.44 mg/l	aquatic organisms	freshwater	short-term (single instance)
formaldehyde	50-00-0	PNEC	0.44 mg/l	aquatic organisms	marine water	short-term (single instance)
formaldehyde	50-00-0	PNEC	0.19 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
formaldehyde	50-00-0	PNEC	2.3 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
formaldehyde	50-00-0	PNEC	2.3 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
formaldehyde	50-00-0	PNEC	0.2 mg/kg	terrestrial organisms	soil	short-term (single instance)
methanol	67-56-1	PNEC	20.8 mg/l	aquatic organisms	freshwater	short-term (single instance)
methanol	67-56-1	PNEC	2.08 mg/l	aquatic organisms	marine water	short-term (single instance)
methanol	67-56-1	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
methanol	67-56-1	PNEC	77 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
methanol	67-56-1	PNEC	7.7 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
methanol	67-56-1	PNEC	100 mg/kg	terrestrial organisms	soil	short-term (single instance)

### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### Skin protection

#### - Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	liquid
Color	yellow
Particle	not relevant (liquid)
Odor	pungent

#### Other safety parameters

pH (value)	1.2 – 2.2 (acid)
Melting point/freezing point	not determined
Initial boiling point and boiling range	not determined
Flash point	66 °C
Evaporation rate	not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapor pressure	not determined
Density	0.985 g/cm <sup>3</sup> at 20 °C
Vapor density	this information is not available
Solubility(ies)	not determined

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	300 °C
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

### 9.2 Other information

Liquid content	88.74 %
Solid content	11.26 %
Temperature class (USA, acc. to NEC 500)	T2A (maximum permissible surface temperature on the equipment: 280°C)

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

### 10.5 Incompatible materials

Oxidizers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

##### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

##### Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

##### Acute toxicity

Harmful if swallowed. Harmful in contact with skin. Toxic if inhaled.

##### - Acute toxicity estimate (ATE)

Oral	1,749 mg/kg
Dermal	1,931 mg/kg
Inhalation: gas	2,252 ppmV/4h
Inhalation: vapor	4.56 mg/l/4h

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	CAS No	Exposure route	ATE
formaldehyde	50-00-0	oral	640 mg/kg
formaldehyde	50-00-0	dermal	270 mg/kg
formaldehyde	50-00-0	inhalation: gas	231.5 ppmV/4h
formaldehyde	50-00-0	inhalation: vapor	0.5 mg/l/4h
methanol	67-56-1	oral	100 mg/kg
methanol	67-56-1	dermal	300 mg/kg
methanol	67-56-1	inhalation: vapor	3 mg/l/4h

##### Skin corrosion/irritation

Causes severe skin burns and eye damage.

##### Serious eye damage/eye irritation

Causes serious eye damage.

##### Respiratory or skin sensitization

May cause an allergic skin reaction.

##### Germ cell mutagenicity

Suspected of causing genetic defects.

##### Carcinogenicity

May cause cancer.

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Number
formaldehyde	50-00-0	1	

#### Legend

1 Carcinogenic to humans

### National Toxicology Program (United States): Report on Carcinogens

Name of substance	CAS No	Classification	Number
formaldehyde	50-00-0	Known to be a human carcinogen	12th Report on Carcinogens

### 29 CFR 1910/1915/1926 Occupational Safety and Health Standards: Toxic and Hazardous Substances (carcinogens)

Name of substance	CAS No	Type of registration
formaldehyde	50-00-0	GI §1910.1048, SE §1915.1048, CI §1926.1148

#### Legend

CI §1926.1148 Construction Industry (29 CFR 1926.1148)  
GI §1910.1048 General Industry (29 CFR 1910.1048)  
SE §1915.1048 Shipyard Employment (29 CFR 1915.1048)

#### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

#### Specific target organ toxicity - single exposure

May cause damage to organs.

#### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

#### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Harmful to aquatic life.

#### Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
formaldehyde	50-00-0	LC50	31.8 mg/l	fish	24 h
formaldehyde	50-00-0	EC50	5.8 mg/l	aquatic invertebrates	48 h
formaldehyde	50-00-0	ErC50	4.89 mg/l	algae	72 h

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Acetic acid 100%	64-19-7	LC50	>1,000 mg/l	fish	96 h
Acetic acid 100%	64-19-7	EC50	>1,000 mg/l	aquatic invertebrates	48 h
Acetic acid 100%	64-19-7	ErC50	>1,000 mg/l	algae	72 h
methanol	67-56-1	LC50	15,400 mg/l	fish	96 h
methanol	67-56-1	EC50	12,700 mg/l	fish	96 h
methanol	67-56-1	ErC50	22,000 mg/l	algae	96 h

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0.1\%$ .

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0.1\%$ .

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### SECTION 14: Transport information

#### 14.1 UN number

DOT	UN 2922
IMDG-Code	UN 2922
ICAO-TI	UN 2922

#### 14.2 UN proper shipping name

DOT	Corrosive liquid, toxic, n.o.s.
IMDG-Code	CORROSIVE LIQUID, TOXIC, N.O.S.
ICAO-TI	Corrosive liquid, toxic, n.o.s.
Technical name (hazardous ingredients)	formaldehyde, methanol

#### 14.3 Transport hazard class(es)

DOT	8 (6.1)
IMDG-Code	8 (6.1)
ICAO-TI	8 (6.1)

#### 14.4 Packing group

DOT	I
IMDG-Code	I
ICAO-TI	I

#### 14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

#### 14.6 Special precautions for user

There is no additional information.

#### 14.7 Transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

### Information for each of the UN Model Regulations

#### Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Particulars in the shipper's declaration	UN2922, Corrosive liquid, toxic, n.o.s., (contains: formaldehyde, methanol), 8 (6.1), I
Reportable quantity (RQ)	972.7 lbs (441.6 kg) (formaldehyde) (Acetic acid 100%)
Danger label(s)	8+6.1



Special provisions (SP)	A7, B10, T14, TP2, TP13, TP27
ERG No	154

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant -  
Danger label(s) 8+6.1



Special provisions (SP) 274  
Excepted quantities (EQ) E0  
Limited quantities (LQ) 0  
EmS F-A, S-B  
Stowage category B

### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Danger label(s) 8+6.1



Special provisions (SP) A3, A4  
Excepted quantities (EQ) E0

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

#### National regulations (United States)

**Toxic Substance Control Act (TSCA)** all ingredients are listed (ACTIVE) or exempt from listing

#### Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

The List of Extremely Hazardous Substances and Their Threshold Planning Quantities				
Name of substance	CAS No	Notes	Reportable quantity (pounds)	Threshold planning quantity (pounds)
formaldehyde	50-00-0	f	100	500

#### Legend

f Chemical on the original list that does not meet toxicity criteria but because of its acute lethality, high production volume and known risk is considered chemical of concern ("Other chemicals"). (November 17, 1986, and February 15, 1990.)

- Specific Toxic Chemical Listings (EPCRA Section 313)

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### Toxics Release Inventory: Specific Toxic Chemical Listings

Name of substance	CAS No	Remarks	Effective date
methanol	67-56-1		1987-01-01
formaldehyde	50-00-0		1987-01-01

### Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name of substance	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
methanol	67-56-1		3 4	5000 (2270)
formaldehyde	50-00-0		1 3 4	100 (45,4)
Acetic acid 100%	64-19-7		1	5000 (2270)

#### Legend

- 1 "1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act  
3 "3" indicates that the source is section 112 of the Clean Air Act  
4 "4" indicates that the source is section 3001 of the Resource Conservation and Recovery Act (RCRA)

### Clean Air Act

Name of substance	CAS No	Type of registration	Basis for listing	Threshold quantity (lbs)
formaldehyde	50-00-0	Toxic substance	b	15000

#### Legend

- b On EHS list, vapor pressure 10 mmHg or greater.

### Right to Know Hazardous Substance List

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
methanol	67-56-1		TE F3
formaldehyde	50-00-0		CA CO MU F4
Acetic acid 100%	64-19-7		CO F2

#### Legend

- CA Carcinogenic  
CO Corrosive  
F2 Flammable - Second Degree  
F3 Flammable - Third Degree  
F4 Flammable - Fourth Degree  
MU Mutagenic  
TE Teratogenic

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals			
Name acc. to inventory	CAS No	Remarks	Type of the toxicity
methanol	67-56-1		developmental
formaldehyde	50-00-0	gas	cancer

### Industry or sector specific available guidance(s)

#### NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	3	major injury likely unless prompt action is taken and medical treatment is given
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

#### NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Health	3	material that, under emergency conditions, can cause serious or permanent injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

### National inventories

Country	Inventory	Status
EU	REACH Reg.	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)

#### Legend

REACH Reg. REACH registered substances  
TSCA Toxic Substance Control Act

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

### SECTION 16: Other information, including date of preparation or last revision

#### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH® 2023	From ACGIH®, 2023 TLVs® and BEIs® Book. Copyright 2023. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: <a href="http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement">http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement</a>
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
ERG No	Emergency Response Guidebook - Number
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

Abbr.	Descriptions of used abbreviations
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
Muta.	Germ cell mutagenicity
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitization
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

### Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H227	Combustible liquid.
H301	Toxic if swallowed.
H302	Harmful if swallowed.

## Bouin's Fluid

Version number: GHS 1.0

Date of compilation: 2023-10-04

Code	Text
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H370	Causes damage to organs.
H371	May cause damage to organs.

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.