SAFETY DATA SHEET

BUFFERED FORMALIN 10%

Compilation date: 07/01/2020

Revision No: 1

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

1.1. Product identifier

Product name: BUFFERED FORMALIN 10%

Product code: RRFF4000

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

Use of substance / mixture: PC21: Laboratory chemicals.

1.3. Details of the supplier of the safety data sheet

Company name: Atom Scientific Ltd

2b East Tame Business Park

Hyde

Manchester

SK14 4GX

Tel: 0161 366 5123

Fax: 01704 337167

Email: technical@atomscientific.com

1.4. Emergency telephone number

Emergency tel: 07833453806

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Skin Sens. 1: H317; Carc. 2: H351; Acute Tox. 4: H302; Muta. 2: H341; Carc. 1B: H350

Classification under CHIP: Xn: R20/21/22; Xn: R40; Sens.: R43; T: R45

Most important adverse effects: May cause an allergic skin reaction. Harmful if swallowed. Suspected of causing genetic defects. May cause cancer.

2.2. Label elements

Label elements under CLP:

Hazard statements: H317: May cause an allergic skin reaction.

H302: Harmful if swallowed.

H341: Suspected of causing genetic defects.

H350: May cause cancer.

Signal words: Danger

Hazard pictograms: GHS07: Exclamation mark

GHS08: Health hazard

[cont...]

Precautionary statements: P202: Do not handle until all safety precautions have been read and understood.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear.

P281: Use personal protective equipment as required.

P308+313: IF exposed or concerned: Get medical.

P321: Specific treatment (see on this label).

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

FORMALDEHYDE

EINECS	CAS	CHIP Classification	CLP Classification	Percent
200-001-8	50-00-0	-	Carc. 2: H351; Acute Tox. 3: H331; Acute Tox. 3: H311; Acute Tox. 3: H301; Skin Corr. 1B: H314; Skin Sens. 1: H317	3.700%

METHANOL

200-659-6	67-56-1	-	Flam. Liq. 2: H225; Acute Tox. 3: H331; Acute Tox. 3: H311; Acute Tox. 3: H301; STOT SE 1: H370	1.000%

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

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

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

[cont...]

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Not applicable.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed.

7.3. Specific end use(s)

Specific end use(s): No data available.

[cont...]

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: **Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	2.5mg/m3	2.5mg/m3	-	-

Hazardous ingredients:

FORMALDEHYDE...100%

Workplace exposure limits: **Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	2.5 mg/m3	2.5 mg/m3	-	-

METHANOL

UK	266 mg/m3	333 mg/m3	-	-

8.1. DNEL/PNEC Values

Hazardous ingredients:

METHANOL

Type	Exposure	Value	Population	Effect
DNEL	Dermal	40 mg/kg	Workers	Systemic
DNEL	Dermal	8 mg/kg	Consumers	Systemic
DNEL	Ingestion	8 mg/kg	Consumers	Systemic
DNEL	Dermal	40 mg/kg	Workers	Systemic
DNEL	Dermal	8 mg/kg	Consumers	Systemic
DNEL	Ingestion	8 mg/kg	Consumers	Systemic
DNEL	Inhalation	260 mg/kg	Workers	Systemic
DNEL	Inhalation	260 mg/kg	Workers	Local
PNEC	Inhalation	260 mg/kg	Workers	Systemic
DNEL	Inhalation	260 mg/kg	Workers	Local
DNEL	Inhalation	50 mg/kg	Consumers	Systemic
DNEL	Inhalation	50 mg/kg	Consumers	Local
DNEL	Inhalation	50 mg/kg	Consumers	Systemic
DNEL	Inhalation	50 mg/kg	Consumers	Local
PNEC	Soil	23.5 mg/kg	-	-
PNEC	Marine water	15.4 mg/l	-	-
PNEC	Fresh water	154 mg/l	-	-

[cont...]

PNEC	Fresh water sediments	570.4 mg/kg	-	-
PNEC	Onsite sewage treatment plant	100 mg/kg	-	-

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Impermeable gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Colourless

Odour: Pungent

Solubility in water: Soluble

Boiling point/range°C: 100

Flammability limits %: lower: 7

upper: 70

Flash point°C: 85

Vapour pressure: 53 hPa at 39°C

Relative density: 1.08

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat. Flames. Sources of ignition.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Acid chlorides. Strong acids. Strong bases. Alkali metals.

Oxidising agents. Acids. Acid anhydrides.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

[cont...]

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

FORMALDEHYDE...100%

ORL	MUS	LD50	42	mg/kg
ORL	RAT	LD50	100	mg/kg
SCU	RAT	LD50	420	mg/kg

METHANOL

IVN	RAT	LD50	2131	mg/kg
ORL	MUS	LD50	7300	mg/kg
ORL	RAT	LD50	5628	mg/kg

Relevant effects for mixture:

Effect	Route	Basis
Acute toxicity (harmful)	INH DRM ING	Hazardous: calculated
Sensitisation	DRM	Hazardous: calculated
Carcinogenicity	--	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

METHANOL

ALGAE	96H ErC50	22000	mg/l
DAPHNIA	48H EC50	>10000	mg/l
FISH	96H LC50	15400	mg/l

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

[cont...]

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

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

15.2. Chemical Safety Assessment

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and 3: H225: Highly flammable liquid and vapour.

H301: Toxic if swallowed.

H302: Harmful if swallowed.

H311: Toxic 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 <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H350: May cause cancer <state route of exposure if it is conclusively proven that no other

[cont...]

routes of exposure cause the hazard>.

H351: Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H370: Causes damage to organs <or state all organs affected, if known> <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R40: Limited evidence of a carcinogenic effect.

R43: May cause sensitisation by skin contact.

R45: May cause cancer.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.