

Safety Data Sheet (SDS)

GENERIC US MSDS – NO COUNTRY SPECIFIC DATA – NO OEL DATA

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product Name: Wash Buffer II
Product SKU: WASH2-004L, WASH2-250M

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

Use of the substance/mixture: Fluorescence In-Situ Hybridization (FISH) on formalin-fixed paraffin-embedded (FFPE) tissues and hematology samples.

1.3 Details of the supplier of the safety data sheet

Company Name: Empire Genomics Corp.
Address: 3370 Walden Avenue, Suite 114
Depew NY 14043 USA
Telephone: +1 716 856 3873
Fax: +1 716 431 3440
Email: info@empiregenomics.com
Internet: www.empiregenomics.com

1.4 Emergency telephone number

Telephone: +1 716 856 3873
9AM – 5PM (EST)

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to 29 CFR 1910 (OSHA HCS)

Hazard categories:

Not classified as a hazardous substance or mixture.

Hazard Statements:

Not applicable.

2.2 Label elements

Labelling according to 29 CFR 1910 (OSHA HCS)

Hazard pictograms: Not applicable.

Signal Word: Not applicable.

Hazardous ingredients: Igepal CA-630 (Octylphenoxypolyethoxyethanol)

Hazard statements: Not applicable.

Precautionary statements: P264 – Wash hands thoroughly after handling.
P280 – Wear protective gloves and eye protection.

2.3 Other hazards

No additional information available

3. Composition/information on ingredients

3.1 Substance

Not applicable

3.2 Mixture

Hazardous components

Name	CAS #	EC #	%	Classification
Water	7732-18-5	231-791-2	≥97%	Not applicable
Igepal CA-630	9036-19-5	Polymer	< 0.1%	Eye Dam. 1, Aquatic Chronic 2

4. First aid measures

4.1 Description of first aid measures

After inhalation

If inhaled, move person into fresh air and seek medical advice.

After contact with eyes

If contact with the eyes occurs, flush with copious amounts of water for at least 15 minutes while keeping eyes open. Seek medical attention. Remove contact lenses.

After contact with skin

If contact with skin occurs, wash with copious amounts of water and remove contaminated clothing. Seek medical attention. Wash clothing before wearing.

After ingestion

If person is conscious, give large amounts of water to drink. Seek medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

After contact with skin: No data available

After contact with eyes: No data available

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Foam carbon dioxide dry powder

5.2 Special hazards arising from the substance or mixture

Product is non-combustible (aqueous solution, >97% water).

In a surrounding fire, the small amount of surfactant component (Igepal CA-630) may decompose.

Possible decomposition products: carbon oxides.

Development of hazardous combustion gases or vapors possible in the event of a fire.

5.3 Advice for firefighters

Wear self-contained breathing apparatus.

Prevent skin contact by wearing appropriate protective clothing.

Suppress gases/vapors with a water jet spray. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

General measures

Wear safety goggles and protective gloves.

Ensure adequate ventilation.

6.2 Environmental precautions

Do not allow to enter drainage system, surface, or ground water.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Keep in suitable closed container for disposal.

Ventilate area and wash spill site after material pickup is complete.

6.4 Reference to other sections

Safe handling: See Section 7

Personal protection equipment: See Section 8

Disposal: See Section 13

7. Handling and storage

7.1 Precautions for safe handling

Wear personal protective equipment when handling. Ensure adequate ventilation.

Keep containers tightly closed in a dry, cool, and well-ventilated area.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions: Ambient (room temperature)
Protect from contamination.
Tightly closed.

Storage class: Non-combustible aqueous solution.

7.3 Specific end use(s)

No additional information available.

8. Exposure controls/personal protection

8.1 Control parameters

No occupational exposure limits (OELs) have been established for the components of this mixture by OSHA, ACGIH, or NIOSH.

8.2 Exposure controls

Appropriate engineering controls: Change contaminated clothing.
Wash hands after working with substance.

Protective and hygiene measures: Keep away from foodstuffs, beverages, and food.
Immediately remove contaminated clothing.
Wash hands during breaks and at the end of the work.
Store protective clothing separately.

Eye/face protection: Safety glasses recommended.

Hand protection: Protective gloves must be worn.
The quality of the protective gloves must be chosen specific to the conditions of use.
Gloves should be changed immediately after wetting.

Skin protection: Use of suitable protective clothing.

Respiratory protection: Not normally required for this aqueous solution.
If aerosols are generated during use, an appropriate dust/mist respirator may be used.
Ensure that maintenance, cleaning and testing of respiratory protective devices are performed in accordance with the manufacturer's instructions.

Environmental exposure controls: Avoid release into drains.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Wash Buffer II

Physical state:	Liquid
Color:	Colorless
Odor:	Slight
pH:	7.0 ± 0.1
Relative evaporation rate:	No data available
Melting point:	ca. 0°C
Freezing point:	No data available
Boiling point:	ca. 100°C
Flash point:	Not applicable
Auto-ignition temperature:	Not applicable
Decomposition temperature:	No data available
Flammability (solid, gas):	Not applicable
Vapor pressure:	ca. 23 hPa at 20°C
Relative vapor density at 20°C:	< 1 (water vapor)
Relative density:	ca. 1.00 g/mL
Solubility:	Miscible with water
Viscosity:	ca. 1 mPa·s (similar to water)
Explosive properties:	Not classified as explosive.
Oxidizing properties:	No data available
Explosive limits:	Not classified as explosive.

Igepal CA-630

Physical state:	Viscous liquid
Color:	Pale yellow
Odor:	Mild aromatic
pH:	ca. 6 (5% aqueous solution)
Relative evaporation rate:	No data available
Melting point:	-50°C
Freezing point:	No data available
Boiling point:	> 200°C

Flash point:	> 110°C
Auto-ignition temperature:	> 300°C
Decomposition temperature:	> 200°C
Flammability (solid, gas):	No data available
Vapor pressure:	< 0.001 hPa at 20°C
Relative vapor density at 20°C:	No data available
Relative density:	No data available
Solubility:	Soluble in water
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	None
Explosive limits:	No data available
	No data available

Saline-Sodium Citrate (SSC) Buffer

Physical state:	Liquid
Color:	Clear
Odor:	Slight
pH:	7.0 ± 0.1
Relative evaporation rate:	No data available
Melting point:	0°C
Freezing point:	No data available
Boiling point:	100°C
Flash point:	Not applicable
Auto-ignition temperature:	Not applicable
Decomposition temperature:	No data available
Flammability (solid, gas):	Not applicable
Vapor pressure:	No data available
Relative vapor density at 20°C:	> 1.0
Relative density:	No data available
Solubility:	Soluble in water
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

Explosive limits: No data available

9.2 Other information

Wash Buffer II

No additional information available.

Igepal CA-630

Surface tension: No data available (typical for non-ionic surfactants)

Saline-Sodium Citrate (SSC) Buffer

No additional information available.

10. Stability and Reactivity

10.1 Reactivity

Wash Buffer II

No data available.

Igepal CA-630

Stable under normal use conditions. Reacts with strong oxidizing agents.

Saline-Sodium Citrate (SSC) Buffer

None.

10.2 Chemical stability

Wash Buffer II

This product is stable under standard ambient conditions.

Igepal CA-630

This product is stable under standard ambient conditions.

Saline-Sodium Citrate (SSC) Buffer

This product is stable under standard ambient conditions.

10.3 Possibility of hazardous reactions

Wash Buffer II

No data available.

Igepal CA-630

No hazardous reactions known under normal handling and storage conditions.

Avoid contact with strong oxidizing agents.

No data available.

Saline-Sodium Citrate (SSC) Buffer

None.

10.4 Conditions to avoid

Wash Buffer II

No data available.

Igepal CA-630

Strong oxidizing agents and extreme heat.

Saline-Sodium Citrate (SSC) Buffer

Incompatible products.

10.5 Incompatible materials

Wash Buffer II

Avoid strong oxidizing agents.

Igepal CA-630

No data available.

Saline-Sodium Citrate (SSC) Buffer

Avoid strong oxidizing agents.

10.6 Hazardous decomposition products

Wash Buffer II

No data available.

Igepal CA-630

No data available.

Saline-Sodium Citrate (SSC) Buffer

None under normal conditions.

11. Toxicological information

11.1 Information on toxicological effects

Wash Buffer II

Acute toxicity: No data available.

CAS No.	Chemical Name	Exposure Route	Dose	Species
9036-19-5	Igepal CA-630	Oral	1,378 mg/kg	Rat
		Inhalation	No data	Rat
		Dermal	2,000 mg/kg	Rabbit
7647-14-5	Sodium Chloride	Oral	3,000 mg/kg	Rat
		Inhalation	No data	Rat
		Dermal	> 10,000 mg/kg	Rabbit

Irritation and corrosivity: No data available.

Sensitizing effects: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity: No data available.

STOT- single exposure: No data available.

STOT- repeated exposure: No data available.

Aspiration hazard: No data available.

Igepal CA-630

Acute toxicity: No data available.

CAS No.	Chemical Name	Exposure Route	Dose	Species
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Irritation and corrosivity: No data available.

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Germ cell mutagenicity: No data available.

Carcinogenicity: IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity: No data available.

STOT- single exposure: No data available.

STOT- repeated exposure: No data available.

Aspiration hazard: No data available.

Saline-Sodium Citrate (SSC) Buffer

Acute toxicity: No data available.

Irritation and corrosivity: No data available.

Sensitizing effects: No data available.

Germ cell mutagenicity:	No data available.
Carcinogenicity:	The ingredients of this product are not listed as carcinogens.
Reproductive toxicity:	No data available.
STOT- single exposure:	No data available.
STOT- repeated exposure:	No data available.
Aspiration hazard:	No data available.

12. Ecological information

12.1 Toxicity

Wash Buffer II

Mixture: No data available.

Igepal CA-630

Fish toxicity: LC50 - Pimephales promelas (fathead minnow) - ca. 7.4 mg/l - 96 h

Saline-Sodium Citrate (SSC) Buffer

Mixture: No data available.

12.2 Persistence and degradability

Wash Buffer II

No data available.

Igepal CA-630

Biodegradability: Aerobic - Exposure time 28 d
Result: Not readily biodegradable.

Biochemical Oxygen Demand: No data available

Chemical Oxygen Demand: No data available

Theoretical Oxygen Demand: No data available

Saline-Sodium Citrate (SSC) Buffer

Persistence is unlikely.

12.3 Bioaccumulative potential

Wash Buffer II

No data available.

Igepal CA-630

No data available.

Saline-Sodium Citrate (SSC) Buffer

No data available.

12.4 Mobility in soil

Wash Buffer II

No data available.

Igepal CA-630

No data available.

Saline-Sodium Citrate (SSC) Buffer

Likely mobile in soil.

12.5 Results of PBT and vPvB assessment

Wash Buffer II

No data available.

Igepal CA-630

No data available.

Saline-Sodium Citrate (SSC) Buffer

No data available.

12.6 Other adverse effects

No additional information available.

13. Disposal considerations

13.1 Waste treatment methods

Dispose in accordance with local, regional, and national environmental regulations.

Leave chemicals in original containers.

14. Transport information

In accordance with ADR/RID/IMDG/IATA/ADN

ADR	RID	IMDG	IATA	ADN
14.1 UN Number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2 UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3 Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4 Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5 Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

14.6 Special precautions for user

Not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

15. Regulatory information

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

National regulatory information

United States

SARA 313 Components:	Not listed
California Prop. 65:	Not listed
Massachusetts Right to Know Components:	Water, Sodium Chloride, Sodium Citrate
Pennsylvania Right to Know Components:	Water, Sodium Chloride, Sodium Citrate, Igepal CA-630

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

16. Other information

Abbreviations and Acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

CAS: Chemical Abstracts Service

EC: Effect Concentration

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

LC: Lethal Concentration

PBT: persistent, bioaccumulative, toxic

REACH: Registration, Evaluation and Authorization of Chemicals

RID: Regulations concerning the international carriage of dangerous goods by rail

STOT: Specific target organ toxicity

vPvB: very persistent, very bioaccumulative

UN: United Nations

The information contained herein is believed to be correct at time of issue but may not be all-inclusive and should be used as a guide only. Further, it is recommended that the product be handled and used by appropriately trained personnel only. Empire Genomics Corp. shall not be held liable for any damage resulting from handling or from contact with the product.