



SAFETY DATA SHEET

SDS#: GS-33428 Rev A
Revision Date: 04/30/2020

Original Preparation Date: 04/27/2020

1. Identification

Product identifier Reagent #1 and Reagent #2, part of the Tissue-Tek Genie® DAB Cleaning Reagent Kit

Other means of identification

Product code 8607-M030, 8608-M030, part of 8606-K060

Recommended use For use with Tissue-Tek Genie® Advanced Staining System

Recommended restrictions Not recommended for use with systems other than Tissue-Tek Genie® Advanced Staining System. To be used by authorized person trained to handle hazardous chemicals

Manufacturer/Importer/Supplier/Distributor information

Manufacturer/Supplier Sakura Finetek USA, Inc.

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Torrance, CA 90501
United States

Telephone 1 (310) 972-7800

Emergency phone number Chemtrec, 1 (800) 424-9300

Email SDSsupport@SakuraUS.com

2. Hazard(s) identification

Health hazards Not classified

Environmental hazards H402 Hazardous to aquatic environment- Acute, Category 3
H412 Hazardous to aquatic environment-chronic, Category 3

OSHA defined hazards N/A

Label elements

Hazard symbol N/A

Signal word N/A

Hazard statement H412 Harmful to aquatic life with long lasting effects
H402 Harmful to aquatic life

Precautionary statement

Prevention P273 Avoid release to the environment

Response N/A

Storage N/A

Disposal Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC) None Known

3. Composition/information on ingredients

Chemical name	CAS number	%
Potassium permanganate	7722-64-7	0.63
Water	7732-18-5	99.37

4. First-aid measures

Inhalation Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult give oxygen.

Skin contact	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse.
Eye contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
Ingestion	Call a physician or poison control center immediately. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get in to the lungs.
Most important symptoms/ effects, acute and delayed	Not expected to present a significant hazard under anticipated conditions of normal use.
Indication of immediate medical attention needed	No Data Available
General Information	Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

5.Fire-fighting measures

General fire hazards	
Suitable extinguishing media	Water spray, sand, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	None known
Specific hazards arising from the chemical	Water runoff can cause environmental damage; avoid releasing to water bodies.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant equipment for fire-fighters coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	Wear self-contained breathing apparatus and protective fire-fighting clothing.
Specific methods	No data available.
General fire hazards	No data available.

6.Accidental release measures

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 of the SDS for Personal Protective Equipment. Avoid contact with skin, eyes and clothing.
Methods and materials for containment and cleaning up	Stop leak if it can be done without risk. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination.
Environmental precautions	Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash hands thoroughly after handling. See Section 8 of the SDS for Personal Protective Equipment.
Conditions for safe storage, including any incompatibilities	Keep away from food, drink and animal feeding stuffs. Keep out of reach of children. Keep container tightly closed in a cool, well-ventilated place. Store in a dry place away from direct sunlight. Store away from incompatible materials. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of chemicals. Incompatible with strong acids, strong bases, strong reducing agents.

8. Exposure controls/personal protection

Occupational exposure limits: Potassium permanganate: No applicable occupational exposure limits to this concentration.and used as intended

US. ACGIH Threshold Limit Values

Components	Type	Value	Source
Reagent #1 and Reagent #2, part of the Tissue-Tek Genie® DAB Cleaning Reagent Kit	GS-33428 Rev A		SDS 2 / 6

Potassium permanganate	TWA	1mg/m ³ (manganese, inorganic compounds, as Mn: USA: Time-weighted average exposure limit 8 h; TLV-adopted value; inhalable fraction)	ACGIH
	TWA	5mg/m ³ as Mn	OSHA PEL

Exposure guidelines N/A

Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after use of product.

Individual protection measures, such as personal protective equipment

Appropriate Engineering Controls Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

General information 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. An eyewash and safety shower should be available in the immediate work area. Chemical goggles are recommended.

Eye/face protection

Skin protection

Hand protection Chemical resistant, impervious gloves should be worn at all times when handling this product.

Other Wear suitable protective clothing and gloves.

Respiratory protection

In case of inadequate ventilation use suitable respirator.

Thermal hazards

N/A

General hygiene considerations Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated foot wear that cannot be cleaned. Wash contaminated clothing before reuse.

9. Physical and chemical properties

Physical state	Liquid
Color	Violet
Odor	Odorless
Odor threshold	No data available.
pH	7
Melting point/freezing point	No data available.
Initial boiling point and boiling range	No data available.
Flash point	Not relevant
Evaporation rate	No data available.
Flammability (solid, gas)	Not flammable
Flammability limits	Not relevant
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	1 g/cm ³
Solubility (water)	Miscible with water.
Auto-ignition temperature	Not relevant
Decomposition temperature	No data available.
Viscosity	No data available.

10. Stability and reactivity

Reactivity	No additional information available
Chemical stability	Stable under recommended storage and use conditions
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Incompatible materials. Sunlight.
Incompatible materials	Strong reducing agents. Strong acids. Strong bases
Hazardous decomposition products	Manganese, oxygen, fume, carbon monoxide, carbon dioxide

11. Toxicological information

Information on likely routes of exposure

Inhalation	N/A
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	N/A

Symptoms related to the physical, chemical and toxicological characteristics No data available

Information on toxicological effects

Acute toxicity	Oral Product	LD50 (Rat):11090 mg/kg LD50 (Mouse): Not available. LD50 (Rabbit): Not available. LD50 (Rabbit): Not available.
	Dermal Product	LD50 (Rabbit): Not available.
	Inhalation Product	LC50 (Rat, 1h): Not available. LC50 (Mouse, 2h): Not available.
	Repeated dose toxicity Product	No information available.
	Skin Corrosion / Irritation Product	No information available.
	Serious Eye Damage / Eye Irritation Product	No information available.
	Respiratory or Skin Sensitization	No information available.
	Carcinogenicity Product	Not classified as carcinogen.
	Germ Cell Mutagenicity	Not classified as germ cell mutagen.
	Reproductive toxicity Product	Not classified.
	Specific Target Organ Toxicity-Single Exposure Product	Not classified.
	Specific Target Organ Toxicity-Repeated Exposure Product	Not classified.
	Aspiration Hazard Product	Not classified

12. Ecological information

Ecotoxicity	Fresh water fish	0.3-0.6 mg/L, LC50, 96 h Oncorhynchus mykiss (rainbow trout)
	Aquatic invertebrates	0.235 mg/L, EC50, 24 h Daphnia magna (water flea)
Persistence and degradability	No data available	
Bioaccumulative potential	No data available.	
Mobility in soil	No data available.	
Other adverse effects	No data available.	

13. Disposal considerations

Disposal instructions	Discharge, treatment, or disposal may be subject to national, state, or local laws.
Waste from unused products	Observe all federal, state and local environmental regulations.
Contaminated packaging	Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT	Not regulated
UN number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Packing Group	N/A
Special Precautions for user	Potassium Permanganate: DOT reportable quantity: 100lb

IATA	Not regulated
UN Number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Packing Group	N/A
ERG Code	N/A

IMDG	
UN number	Not regulated
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Packing Group	N/A
Marine pollutant	Potassium Permanganate: Marine Pollutant

15. Regulatory information This product is not considered as a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR1910.1200.

US federal regulations

Massachusetts RTK: Not a subject to the Massachusetts Right to Know Act.

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986. Chemicals known to the State of California to Cause Cancer: This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity	
Potassium Permanganate <u>CERCLA/SARA</u>	7722-64-7	Not listed.	Not listed.	Not listed.	Not listed.	
Component	CAS No.	CERCLA-Hazardous substance and their reportable quantities	Section 302 Extremely hazardous substances and TPQs	Section 302 Extremely hazardous substances and RQs	Section 313 Chemical Category	Section 313 Reporting de minimis

Potassium Permanganate	7722-64-7	N/A	N/A	N/A	N450 manganese compounds	Does not exceed De minimis
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U.S. TSCA

Component	CAS No.	TSCA section 5(a)2- Chemicals with significant new use rules (SNURS)	TSCA 8(d)-Health and safety reporting
Potassium permanganate	7722-64-7	NA	Listed

International Inventories

Country(s) or region	Inventory Name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No data available
Canada	Domestic Substances List (DSL)	No data available
Canada	Non-Domestic Substances List (NDSL)	No data available
China	Inventory of Existing Chemical Substances in China (IECSC)	No data available
Europe	European Inventory of Existing Commercial Chemical Substances	No data available
Europe	European List of Notified Chemical Substances (ELINCS)	No data available
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No data available
Korea	Existing Chemicals List (ECL)	No data available
New Zealand	New Zealand Inventory	No data available
Philippines	Philippine Inventory of Chemicals and Chemical Substances	No data available
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No data available

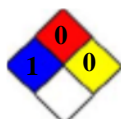
*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 04/27/2020
Revision date 04/30/2020
Version # A
Further information N/A

NFPA ratings



Flammability
 Health
 Reactivity
 Special hazard

Disclaimer

Hazard rating: 0-Minimal; 1-Slight; 2-Moderate; 3-Serious; 4-Severe; RNP-Rating not possible
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