



SAFETY DATA SHEET

SDS#: GS-33221 Rev A
Revision Date: 2019-06-06

Original Preparation Date: 05/31/2019

1. Identification

Product identifier Tissue-Tek Genie® DUO Mouse-DAB/Rabbit-AP Red Dual Detection Kit

Other means of identification

Product code 8837-K250

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.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer/Supplier Sakura Finetek USA, Inc.

Address 1750 W 214th St
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

Physical hazards N/A

Health hazards Acute toxicity
Germ cell mutagenicity
Carcinogenicity

Environmental hazards N/A

OSHA defined hazards DAB Substrate
Acute toxicity, Oral, Category 4 – H302
Germ cell mutagenicity, Category 2 – H341
Carcinogenicity, Subcategory 1B – H350
DAB Intensifier
Acute toxicity, Oral, Category 4 – H302
Acute toxicity, Dermal, Category 4 – H312

Label elements

Hazard symbol



Signal word

Danger

Hazard statement

H302 Harmful if swallowed.
H312 Harmful in contact with skin
H341 Suspected of causing genetic defects.
H350 May cause cancer.

Precautionary statement

Prevention	P201 Obtain special instruction before use. P202 Do not handle until all safety precautions have been read and understood. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
Response	P301+P312 IF SWALLOWED: call a POISON CENTER/doctor if you feel unwell. P302+P352+P312 IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. P308+P313 IF exposed or concerned, get medical advice/attention. P330 Rinse mouth. P362+P364 Take off contaminated clothing and wash before reuse. P391 Collect spillage.
Storage	P405 Store Locked up
Disposal	P501 Dispose of contents/container in accordance with local/regional/national/ international regulation.
Hazard(s) not otherwise classified (HNOC)	None Known

3. Composition/information on ingredients

Chemical name	CAS number	%
<u>DAB Substrate</u>		
3,3',4,4'-Diaminobenzidine tetrachdrochloride	868272-85-9	<0.1%<(m/v)<1%
Sodium metabisulfite	7681-57-4	<20%
<u>DAB Intensifier</u>		
Imidazole	288-32-4	<2%

The remaining individual components of this kit have been classified as non-hazardous based on the physical and/or chemical nature and/or concentration of ingredients

4. First-aid measures

Inhalation	Move to fresh air. If not breathing give artificial respiration. Consult a physician.
Skin contact	Immediately wash skin with soap and copious amount of water. If concerned, consult a physician.
Eye contact	Immediately flush eyes with copious amount of water for at least 15 minutes and consult a physician.
Ingestion	Rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms/effects, acute and delayed	No Data available
Indication of immediate medical attention and special treatment needed	No Data Available
General Information	N/A

5.Fire-fighting measures

Suitable extinguishing media	Water spray, carbon dioxide, dry chemical powder or alcohol resistant foam.
Unsuitable extinguishing media	None known
Specific hazards arising from the chemical	Carbon oxides.
Special protective equipment and precautions for firefighters	No data available.
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	Wear Personal protective Equipment. Avoid contact with eyes and skin. Ensure adequate ventilation. Collect on absorbent material and dispose of according to federal, state and local environmental regulations.
Methods and materials for containment and cleaning up	Stop leak and move containers from spill area if without risk. Keep in suitable closed containers for disposal.
Environmental precautions	Dispose in accordance with applicable local, regional, national and international laws and regulations. See section 13 for disposal.

7. Handling and storage

Precautions for safe handling	Wear lab coat, chemical safety goggles, and gloves. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Use only with adequate ventilation.
Conditions for safe storage, including any incompatibilities	Store in tightly closed container at 2-8°C.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
None	N/A	N/A	N/A

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
None	N/A	N/A	N/A

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
None			

Biological limit values No Data available

ACGIH Biological Exposure Indices

Components	Value	Determinant
None	N/A	N/A

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

Eye/face protection Chemical safety goggles/glasses.

Skin protection

Hand protection	Chemical resistant, impervious gloves should be worn at all times when handling this product.
Other	Appropriate personal protective equipment for the body, foot and any additional skin protection measures should be selected based on the tasks being performed and risks involved.
Respiratory protection	Use only with adequate ventilation. Avoid breathing the product.
Thermal hazards	N/A
General hygiene considerations	Wash hands before and after use of product.

9. Physical and chemical properties

Protein Block

Appearance

Physical state	Liquid
Color	Peach
Odor	No data available.
Odor threshold	No data available.
pH	7.3-7.7
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
Upper/lower flammability or explosive limits	
Flammability limit – lower (%)	Not relevant
Flammability limit – upper (%)	Not relevant
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	Not relevant
Decomposition temperature	No data available.
Viscosity	No data available.

Link Mouse and Link Rabbit

Appearance

Physical state	Liquid
Color	Yellow
Odor	No data available.
Odor threshold	No data available.
pH	7.3-7.7
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
Upper/lower flammability limits	

Flammability limit – lower (%)	Not relevant
Flammability limit – upper (%)	Not relevant
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	Not relevant
Decomposition temperature	No data available.
Viscosity	No data available.
<u>Polymer AP-Conjugate</u>	
Appearance	
Physical state	Liquid
Color	Clear/pale orange
Odor	No data available.
Odor threshold	No data available.
pH	7.3-7.7
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
Upper/lower flammability or explosive limits	
Flammability limit – lower (%)	Not relevant
Flammability limit – upper (%)	Not relevant
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	Not relevant
Decomposition temperature	No data available.
Viscosity	No data available.

DAB Substrate and Buffer

Appearance	
Physical state	Liquid
Color	Chromogen: Brown Buffer: Colorless
Odor	No data available.
Odor threshold	No data available.
pH	No data available.
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

Upper/lower flammability or explosive limits	
Flammability limit – lower (%)	Not relevant
Flammability limit – upper (%)	Not relevant
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	Not relevant
Decomposition temperature	No data available.
Viscosity	No data available.
<u>Red Chromogen</u>	
Appearance	
Physical state	Liquid
Color	Chromogen: Yellow Buffer: colorless
Odor	No data available.
Odor threshold	No data available.
pH	No data available.
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
Upper/lower flammability or explosive limits	
Flammability limit – lower (%)	Not relevant
Flammability limit – upper (%)	Not relevant
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	Not relevant
Decomposition temperature	No data available.
Viscosity	No data available.

10. Stability and reactivity

Reactivity	No Data Available
Chemical stability	Stable under recommended storage and use conditions
Possibility of hazardous reactions	No Data Available
Conditions to avoid	pH extremes
Incompatible materials	No Data Available
Hazardous decomposition products	Not determined

11. Toxicological information

Information on likely routes of exposure

Inhalation	Unlikely when using appropriate personnel protective equipment and safety measures.
Skin contact	Unlikely when using appropriate personnel protective equipment and safety measures.
Eye contact	Unlikely when using appropriate personnel protective equipment and safety measures.
Ingestion	Unlikely when using appropriate personnel protective equipment and safety measures.
Symptoms related to the physical, chemical and toxicological characteristics	No data available
Information on toxicological effects	
Acute toxicity	No data available
Chronic effects	No data available.
Additional effects	No data available

12. Ecological information

Ecotoxicity	No data available.
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	
Waste from residues / unused products	Observe all federal, state and local environmental regulations.
Contaminated packaging	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

14. Transport information

DOT	Not regulated as a dangerous good.
UN number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
IATA	Not regulated as a dangerous good.
UN Number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Environmental hazards	N/A
ERG Code	N/A
Special precautions for user	N/A
IMDG	Not regulated as a dangerous good.
UN number	N/A

UN proper shipping name	N/A
Transport hazard class(es)	N/A
Environmental hazards	N/A
Marine pollutant	N/A
EmS	N/A
Special precautions for user	N/A
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	N/A

15. Regulatory information

US federal regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance	Not chemicals in this material are subject to the reporting requirements.
SARA 311/312 Hazardous chemical	Hazards- No SARA Hazards
SARA 313 (TRI reporting)	This product does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels.

Other federal regulations

Clean Air Act (CAA) Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489)	This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)	This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

US state regulations

US. Massachusetts RTK - Substance List	Link and Protein Block Sodium Azide CAS 26628-22-8, < 0.1%
US. New Jersey Worker and Community Right-to-Know Act	Link and Protein Block Sodium Azide CAS 26628-22-8, < 0.1%
US. Pennsylvania Worker and Community Right-to-Know Law	Link and Protein Block Sodium Azide CAS 26628-22-8, < 0.1%
US. California Proposition 65	This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

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 (EINECS)	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 (PICCS)	No data available
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No data available
		No data available
		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	05/31/2019
Revision date	2019-06-06
Version #	A
Further information	HMIS is a registered trade and service mark of the American Coatings Association (ACA).
HMIS® ratings	
	Health: 3
	Flammability: 0
	Physical hazard: 0

NFPA ratings



Disclaimer

Sakura Finetek USA Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.