

Safety Data Sheet

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Catalog Number: VPK-5191
Product Name: Viral Plaque Assay Kit
Recommended Use: Laboratory Research Reagents

MANUFACTURER:

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SECTION 2. HAZARDS IDENTIFICATION

Cell Stain Solution (Part No. 51912): One Bottle – 30.0 mL

Classification:

Flammable liquids, Category 2 (H225)
Acute toxicity, Oral, Category 4 (H302)
Serious eye damage, Category 1 (H318)
Eye irritation, Category 2A (H319)
Carcinogenicity, Category 2, (H351)
Acute aquatic toxicity, Category 1 (H400)
Chronic aquatic toxicity, Category 2 (H411)

Pictogram	
Signal Word	Danger
<p>Hazard Statements: Highly flammable liquid and vapour (H225), Harmful if swallowed (H302), Causes serious eye damage (H318), Causes serious eye irritation (H319), Suspected of causing cancer (H351), Very toxic to aquatic life with long lasting effects (H410).</p>	
<p>Precautionary Statements: Obtain special instructions before use (P201), Do not handle until all safety precautions have been read and understood (P202), Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Keep container tightly closed (P233), Ground/bond container and receiving equipment</p>	

(P240), Use explosion-proof electrical/ventilating/lighting/equipment (P241), Use only non-sparking tools (P242), Take precautionary measures against static discharge (P243), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), Use personal protective equipment as required (P281), If on skin or hair: Take off immediately all contaminated clothing (P303 + P361 + P353), IF SWALLOWED: call a POISON CENTER if you feel unwell. Rinse mouth (P301 + P312 + P330), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / doctor (P305 + P351 + P338 + P310), IF exposed or concerned: Get medical advice/attention (P308 + P313), In case of fire: use dry sand, dry chemical or alcohol-resistant foam for extinction (P370 + P378), Collect spillage (P391), Store in a well-ventilated place and keep cool (P403 + P235), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).

10X Fixation Solution (Part No. 51911): One bottle – 20.0 mL

Classification:

Flammable solids, Category 2 (H228)

Acute toxicity, Oral, Category 4 (H302)

Acute toxicity, Inhalation, Category 4 (H332)

Skin irritation, Category 2 (H315)

Serious eye damage, Category 1 (H318)


Skin sensitization, Category 1 (H317)

Carcinogenicity, Category 2, (H351)

Specific target organ toxicity - single exposure, Category 3, Respiratory system (H335)

Acute aquatic toxicity, Category 3, (H402)

Chronic aquatic toxicity, Category 3 (H412)

Pictogram	
Signal Word	Danger
<p>Hazard Statements: Flammable solid (H228), Harmful if swallowed or inhaled (H302 + H332), Causes skin irritation (H315), May cause an allergic skin reaction (H317), Causes serious eye damage (H318), May cause respiratory irritation (H335), Suspected of causing cancer (H351), Harmful to aquatic life with long lasting effects (H412).</p>	
<p>Precautionary Statements: Obtain special instructions before use (P201), Do not handle until all safety precautions have been read and understood (P202), Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Ground/bond container and receiving equipment (P240), Use explosion-proof electrical/ventilating/lighting equipment (P241), Avoid breathing dust/fume/gas/mist/vapors/spray (P261), Wash skin thoroughly after handling (P264), Do not eat,</p>	

drink, or smoke when using this product (P270), Use only outdoors or in a well-ventilated area (P271), Contaminated work clothing should not be allowed out of the workplace (P272), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell (P301 + P312), IF ON SKIN: wash with plenty of soap and water (P302 + P352), IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304 + P340), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305 + P351 + P338), Immediately call a POISON CENTER or doctor /physician (P310), Rinse mouth (P330), If skin irritation or rash occurs: Get medical advice/attention (P333 + P313), Take off contaminated clothing and wash before reuse (P362), In case of fire: use dry sand, dry chemical or alcohol-resistant foam to extinguish (P370 + P378), Store in a well-ventilated place. Keep container tightly closed (P403 + P233), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Cell Stain Solution (Part No. 51912): One Bottle – 30.0 mL

CHEMICAL NAME	CONCENTRATION	CAS #
Crystal Violet	0.09%	548-62-9
Ethanol	10%	64-17-5

10X Fixation Solution (Part No. 51911): One bottle – 20.0 mL

CHEMICAL NAME	CONCENTRATION	CAS #
Formaldehyde	32 %	30525-89-4

SECTION 4. FIRST-AID MEASURES

- IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
- IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.
- IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or CO2
- Special protective equipment: Self-contained breathing apparatus

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Evacuate area
- Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.
- Absorb with sand or vermiculite, sweep up, place in a bag and hold for waste disposal.
- Avoid raising dust.
- Ventilate area and wash spill site after material pickup is complete.

SECTION 7. SAFETY HANDLING AND STORAGE

- Should be handled by trained personnel observing good laboratory practices.
- Avoid breathing vapor.
- Avoid skin contact or swallowing.
- May cause allergic reaction in sensitized individuals.
- Store in properly labeled containers at temperature on label

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering measures: Handle in accordance with good industrial hygiene and safety practices. Wash hands immediately after handling the product.
- Personal protective equipment: Face shield or safety glasses, gloves, protective clothing, suitable respiratory equipment in cases of inadequate ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form: liquid
- Odor: no data available
- pH: no data available
- Boiling point / range: no data available
- Melting point / range: no data available
- Flash point: no data available
- Evaporation rate: no data available
- Vapor pressure: no data available
- Vapor density: no data available
- Relative density: no data available
- Water solubility: no data available
- Autoignition temperature: no data available
- Decomposition temperature: no data available
- Viscosity: no data available
- Explosive properties: no data available
- Oxidizing properties: no data available

SECTION 10. STABILITY AND REACTIVITY

- Stability: no data available
- Reactivity: no data available
- Conditions to avoid: no data available
- Incompatible materials: no data available

- Decomposition products: no data available

SECTION 11. TOXICOLOGICAL INFORMATION

- Acute toxicity
 - Crystal Violet: LD50 Oral 96 mg/kg (mouse); LD50 Oral 150 mg/kg (rabbit); LD50 Intraperitoneal 8,9 mg/kg (rat); LD50 Intraperitoneal 5,1 mg/kg (mouse); LD50 Intraperitoneal 5 mg/kg (rabbit); LD50 Intraduodenal 160 mg/kg (rabbit)
 - Ethanol: LD50 Oral 7.060 mg/kg (rat), LC50 Inhalation 20000 ppm 10h (rat)
 - Formaldehyde: LD50 Oral 592 mg/kg (rat), LC50 Inhalation 1.070 mg/m³ 4h (rat), LDLO Dermal 10.000 mg/kg (rat)
- Skin corrosion/irritation
 - Crystal Violet: irritating to skin-human
 - Ethanol: Irritating to skin 24h (rabbit)
 - Formaldehyde: severe eye irritation (rabbit)
- Serious eye damage/irritation
 - Crystal Violet: no data available
 - Ethanol: Mild eye irritation 24h Draize test (rabbit)
 - Formaldehyde: severe eye irritation (rabbit)
- Respiratory or skin sensitization:
 - Crystal Violet: no data available
 - Formaldehyde: may cause allergic skin reaction
- Germ cell mutagenicity: no data available
- Carcinogenicity: no data available
- Reproductive toxicity: no data available

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity
 - Crystal Violet: Toxicity to daphnia and other aquatic invertebrate: EC50-Daphnia magna (Water flea)-0,24 mg/l-48h; Toxicity to algae: Pseudokirchneriella subcapitata 0,025-0,8 mg/l 72h
 - Formaldehyde: Toxicity to daphnia and other aquatic invertebrates: EC5- 42 mg/l 24h (Daphnia magna)
- Mobility: no data available
- Biodegradation
 - Crystal Violet: not readily biodegradable
 - Formaldehyde: no data available
- Bioaccumulation: no data available

SECTION 13. DISPOSAL CONSIDERATIONS

For small quantities: Cautiously add to a large stirred excess of water. Adjust the pH to neutral. Flush the aqueous solutions down the drain with plenty of water.

SECTION 14. TRANSPORT INFORMATION - IATA

- Hazard Class: 9

- Subsidiary Class: none
- Packing Group: III
- UN-No: UN3082

- Hazard Class: 3
- Subsidiary Class: none
- Packing Group: II
- UN-No: UN1170

NOTE: THIS PRODUCT IS SHIPPED AS "DANGEROUS GOODS IN EXCEPTED QUANTITIES" UNDER IATA REGULATION 2.6.2.2.

SECTION 15. REGULATORY INFORMATION

- Safety, health and environmental regulations/legislation specific for the substance or mixture: no data available
- Chemical safety assessment: no data available

SECTION 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide for experienced personnel. Cell Biolabs, Inc. shall not be held liable for any damage resulting from the handling or from contact with the above product(s).

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