



Dojindo Laboratories

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Material Safety Data Sheet (MSDS)

This product is a chemical substance and is intended to be used by persons having chemical knowledge and skill, at their own discretion and risk.

Issue Date Jan. 19, 2011

Section 1. Chemical Identification	
Trade Name:	SOD Assay Kit – WST
Parts Name:	(WST solution) (Enzyme solution) (Buffer solution) (Dilution buffer)
Product Code:	S311
Manufacturer:	Dojindo Laboratories
Address:	Tabaru 2025-5 Mashiki-machi, Kamimashiki-gun, Kumamoto 861-2202, Japan
Telephone:	+81-96-286-1515

Section 2. Hazard Statement	
Health Hazards (Acute and Chronic): May be harmful by inhalation, ingestion, or skin absorption. Causes eye and skin irritation. Material is irritating to mucous membranes and upper respiratory tract.	
Hazard Class:	Not applicable
Signs and Symptoms of Exposure:	Not available
Medical Conditions Generally Aggravated by Exposure:	Not available
Physical and Chemical Hazard:	
-	Not categorical
Health Hazard:	
Acute toxic (oral):	Not categorical
Acute toxic (skin):	Not categorical
Acute toxic (inhale):	Not categorical
Skin corrosion/Skin irritation:	Not categorical
Serious eye damage/Eye irritation:	Not categorical
Respiratory sensitizer:	Not categorical
Skin sensitizer:	Not categorical
Germ cell Mutagen:	Not categorical
Carcinogen:	Not categorical
Germ toxic:	Not categorical
Target internal organs/general toxic: (individual single exposure):	Not categorical
Target internal organs/general toxic: (repeated exposure):	Not categorical
Respiratory hazard:	Not categorical
Ecology Hazard:	
Aquatic ecology acute hazard:	Not categorical
Aquatic ecology chronic hazard:	Not categorical
Symbol:	None
Signal Word	Not signal word
Hazard Statement:	
Precautionary Statement	None
Precaution:	-
First-aid:	-
Storage:	-
Disposal:	-

Section 3. Composition / Information on Ingredients	
Chemical Name:	-
Ingredient/Content:	WST solution (2-(4-Iodophenyl)-3-(4-nitrophenyl)-5-(2,4-disulfophenyl)-2H-tetrazolium, monosodium salt) / <1% (Not contains Hazardous substances) Enzyme solution (Xanthine oxidase) / <1% (Not contains Hazardous substances) Buffer solution (Xanthine) / <1% (Not contains Hazardous substances)

Molecular Formula:	Dilution buffer (Not contains Hazardous substances)
Molecular Weight:	-
CAS Registry #:	150849-52-8 (2-(4-Iodophenyl)-3-(4-nitrophenyl)-5-(2,4-disulfophenyl)-2H-tetrazolium, monosodium salt) 690-89-6 (Xanthine)
EINECS/ELINCS:	-
Hazardous ingredient:	Not applicable

Section 4.	<i>First Aid Procedures</i>
In case of contact with eyes, immediately flush eyes with copious amounts of water for at least 15 minutes. In case of contact, immediately wash skin with soap and copious amounts of water. Assure adequate flushing of the eyes by separating the eyelids with fingers. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If ingested, wash out mouth with water. Call a physician. Discard contaminated clothing and shoes.	

Section 5.	<i>Fire and Explosion Hazard Data</i>
Flash Point (Method Used):	Not available
Flammable Limits:	Not available
Extinguishing Media:	Carbon dioxide, dry chemical powder, foam, water.
Special Fire Fighting Procedures:	Wear protective clothing, respirator, chemical safety goggles, rubber boots and heavy rubber gloves.
Unusual Fire and Explosion Hazards:	Fire may produce irritating or poisonous gases.

Section 6.	<i>Accidental Release Measures</i>
Steps to be Taken in Case Material is Released or Spilled: Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. Evacuate area. Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete. Avoid raising dust.	

Section 7.	<i>Handling and Storage</i>
Wear appropriate NIOSH / MSHA-approved respirator, chemical-safety goggles, chemical-resistant gloves, other protective clothing. Mechanical exhaust required. Use only in a chemical fume hood. Safety shower and eye bath. Face shield. Do not breathe dust. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Irritant. Avoid all contact. Avoid prolonged or repeat.	
Other Precautions: Keep tightly closed. Store in a cool(0-5°C), dark and dry place.	

Section 8.	<i>Exposure Controls / Personal Protection</i>
Respiratory Protection (Specify Type):	Necessary
Ventilation, Local Exhaust:	Chemical fume hood
Mechanical (General):	Necessary
ACGIH:	Not available
Protective Gloves:	Chemical-resistant gloves
Eye Protection:	Chemical-safety goggles
Other protective Clothing or Equipment:	Necessary
Work / Hygienic Practices:	Wash thoroughly after handling. Access to a safety shower and eye-wash. Do not permit eating, drinking or smoking near material.

Section 9.	<i>Physical / Chemical Characteristics</i>
Melting Point:	Not available
Boiling Point:	Not available
Specific Gravity (water=1):	Not available
Vapor Pressure:	Not available
Vapor Density (air=1):	Not available
Evaporation Rate (butyl acetate=1):	Not available
Solubility in Water:	Soluble
Appearance and Odor:	WST solution (slightly yellow) Enzyme solution (white-pink) Buffer solution (colorless) Dilution buffer (colorless)

Section 10.	<i>Reactivity Data</i>
Stability:	Stable
Conditions to Avoid:	Heat, sunlight, high temperature

Incompatibility (Materials to Avoid):	Strong oxidizing agents, strong acids and strong bases.
Hazardous Decomposition or Byproducts:	
When decomposed, it may emit toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen fluoride gas and sulfur oxides.	
Hazardous Polymerization:	Will Not Occur

Section 11.	<i>Toxicological Information</i>
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Acute Effects:	Data not available
Chronic Effects:	Data not available
Carcinogenicity:	Data not available
RTECS #:	Not listed

Section 12.	<i>Ecological Information</i>
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Ecotoxicity:	Data not available
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Section 13.	<i>Disposal Considerations</i>
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Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.	
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Section 14.	<i>Transport Information</i>
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UN No.:	Not regulated
Class:	Not regulated
PG:	Not regulated
Description:	-

Section 15.	<i>Regulatory Information</i>
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PRTR Law:	Not applicable
Industrial Safety and Health Law:	Not applicable
Posisonous and Deleterious Substance Control Law:	Not applicable
Fire Service Act:	Not applicable
Law Concerning the Examination and Regulation of Manufacture, etc of Chemical Substances:	Not applicable
Avitation Law:	Not applicable
Ship Safety Law:	Not applicable

Section 16.	<i>Other Information</i>
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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.	
Dojindo Laboratories shall not be held liable for any damage resulting from handling or from contact with the above material.	
MSDS Creation Date: 2010/11/15	Revision #:

Masanobu Shiga
 Manager
 Quality Control