

# Material Safety Data Sheet

Section 1: Product Information		
Product Name: NWLSS™ Glutathione Peroxidase Assay		
Product Number: NWK-GPX01		
Manufacturer's Information:		
Company Name:	Northwest Life Science Specialties, LLC	
Address:	5131 NE 94th Avenue Vancouver, WA 98683	
Emergency Phone:	888-449-3091, 360-449-3091	
Section 2: Components		
<u>Part Description</u>		<u>Quantity</u>
NADPH: β-Nicotinamide adenine dinucleotide phosphate and GSH.		18 mg
Assay Buffer: Potassium Phosphate buffer with EDTA and Sodium Azide 1 x 125 mL		
NADPH Diluent:		
Glutathione Reductase in buffer with stabilizer and Sodium Azide;		2 x 6 mL
H <sub>2</sub> O <sub>2</sub> Reagent: 3% Hydrogen Peroxide		1 x 1 mL
Section 3: Hazardous Ingredients		
<u>Known Hazardous Components:</u>	<u>CAS Number</u>	<u>Percent</u>
β-Nicotinamide adenine dinucleotide	2646-71-1	NA
Potassium Phosphate, Dibasic	7758-11-4	0.9%
Sodium Dihydrogen Phosphate Monohydrate	10049-21-5	0.7%
Ethylenediaminetetraacetic Acid (EDTA)	6381-92-6	0.1%
Sodium Azide (NaN <sub>3</sub> )	26628-22-8	0.03%
Glutathione Reduced Form, Free Acid	68-12-2	0.1%
Hydrogen Peroxide	7722-84-1	3.0%
Section 4: Fire and Explosion Data		
None of the components of this product pose a significant risk in case of fire. Fire fighting media should be selected as appropriate to surrounding fire conditions. Firefighters should wear suitable protective gear to limit exposure possibilities including inhalation.		
Section 5: Stability and Reactivity		
The unopened product is stable until the date indicated on the label if stored as specified. Individual and reconstituted components are stable as specified in the product insert. There are no known hazardous reactions between these components.		
Section 6: Toxicological Information		
β-Nicotinamide adenine dinucleotide		
Acute Effects: Mild Irritant. May irritate eyes, mucous membranes and upper respiratory Tract.		
May be harmful if absorbed through the skin, inhaled or swallowed		

### Potassium Phosphate, Dibasic

Acute Effects: Mild Irritant

Chronic Effects: No known chronic toxicity.

### Sodium Dihydrogen Phosphate Monohydrate

Acute Effects: Mild Irritant

Chronic Effects: No known chronic toxicity.

<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
LD50	>2000 mg/kg	Oral	Rat

Chronic Effects: Mutagenic

<u>Test</u>	<u>Dose</u>	<u>Cell Type</u>	<u>Species</u>
Cytogenic Analysis	200 mg/L	Lung	Hamster

<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
LD50	27 mg/kg	Oral	Rat
LC50	37 mg/m <sup>3</sup>	Inhalation	Rat

Acute Effects: May be fatal if absorbed through the skin swallowed or inhaled.

Irritating to eyes, respiratory system and skin.

Chronic Effects: Carcinogenic and Mutagenic

<u>Test</u>	<u>Dose</u>	<u>Cell Type</u>	<u>Species</u>
Mammalian Somatic	500 mg/L	Lymphocyte	Mouse
Mammalian Somatic	500 mMol/L	Lymphocyte	Rat

<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
LD50	5000 mg/kg	Oral	Mouse
LD50	4020 mg/kg	IV	Mouse

Acute Effects: Mild Irritant

Irritating to eyes, respiratory system and skin.

May be harmful if swallowed.

Chronic Effects: Mutagenic

<u>Test</u>	<u>dose</u>	<u>Cell Type</u>	<u>Species</u>
DNA Inhibition	10 mM/L	Lymphocyte	Mammalian

<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
LD50	3000 mg/kg	Dermal	Rat
LD50	>50 g/kg	IV	Mouse
LC50	>850 mg/m <sup>3</sup>	ORAL	Rabbit

Acute Effects: Moderate irritant

Irritating to eyes, respiratory system and skin.

Harmful if swallowed.

Very toxic by inhalation.

Chronic Effects: Carcinogen-Mutagen

Carcinogenicity:

Has been shown to be carcinogenic in laboratory animals after 2 year oral exposure.

Mutagenicity:

<u>Test</u>	<u>Dose</u>	<u>Cell type</u>	<u>Species</u>
DNA Damage	9 uMol/L	Lymphocyte	Human

<u>Test</u>	<u>dose</u>	<u>Cell Type</u>	<u>Species</u>
Mammalian Somatic	50 uMol/L	Lymphocyte	Rat
<b>Section 7: Preventive Measures / Exposure Control</b>			
The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that laboratory personnel minimize direct skin or eye contact by following standard laboratory safety procedures when handling this product. Standard safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing.			
<b>Section 8: First Aid Measures</b>			
<u>Skin Exposure</u>	Remove any contaminated clothing. Flush affected area with copious amounts of water for at least 15 minutes then wash thoroughly. If irritation persists, contact a physician to seek medical advice.		
<u>Eye Exposure</u>	If wearing contact lenses, remove them. Flush with copious amounts of water for at least 15 minutes.		
<u>Ingestion</u>	If swallowed and individual is conscious, wash out mouth with water. Contact a physician to seek medical advice.		
<u>Inhalation</u>	Move to fresh air. If difficulty breathing, oxygen may be administered. If breathing stops, administer artificial respiration and seek emergency medical assistance.		
<b>Section 9: Accidental Release / Spillage Measures</b>			
Ventilate area. Shut off all sources of ignition. Wear appropriate protective gear. Wipe or pick-up spilled material, place in sealed container if necessary, dispose of in accordance with federal, state, and local regulations. Wash spill site thoroughly after material pick-up is complete.			
<b>Section 10: Handling and Storage</b>			
This product should be stored as recommended on the product label. All components should be kept in tightly closed containers. Refer to the Storage section of the product insert for additional information. This product should only be handled and used by qualified, trained professional laboratory personnel.			
<b>Section 11: Other Information</b>			
This information is believed to be correct however does not claim to be all inclusive and is intended as a general guide only. Northwest Life Science Specialties, LLC shall not be held liable for any damage resulting from handling of or contact with this product or components therein. The burden of safe use of this and other products used in connection with this product rests solely with the user.			