

## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : EzRIPA Lysis kit  
Product Code : WSE-7420  
MSDS No. : A0031-1  
General Use : Research use only

#### MANUFACTURER

Company Name : ATTO Corporation  
Address : 2-2, Motoasakusa 3 cho-me, Taito-ku, Tokyo 111-0041, Japan  
Telephone No. : +81-3-5827-4861

#### EMERGENCY TELEPHONE NUMBER

: +81-3-5827-4863

### 2. HAZARDS IDENTIFICATION

#### GHS CLASSIFICATION

Hazardous to the Aquatic Environment-ACUTE HAZARD: Category 3

Hazardous to the Aquatic Environment-LONG-TERM HAZARD: Category 3

PICTOGRAM : -

HAZARD STATEMENTS : H402 Harmful to aquatic life

H412 Harmful to aquatic life with long lasting effects

#### PRECAUTIONARY STATEMENTS

Prevention: P273 Avoid release to the environment

Disposal: P501 Dispose of contents/container in accordance with  
local/regional/national/international regulations.

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

WSE-7420 EzRIPA Lysis kit : Mixtures			
<b>RIPA Lysis buffer</b>			
Chemical Name	wt(%)	Chemical Formula	CAS Registry No.
Poly(oxy-1,2-ethanediyl), .alpha.-[[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	1.0%	(C <sub>2</sub> H <sub>4</sub> O) <sub>n</sub> C <sub>14</sub> H <sub>22</sub> O	9036-19-5
Sodium chloride	0.9%	ClNa	7647-14-5
<b>Protease Inhibitor</b>			
Chemical Name	wt(%)	Chemical Formula	CAS Registry No.
Dimethyl sulfoxide	90%	C <sub>2</sub> H <sub>6</sub> OS	67-68-5
<b>Phosphatase inhibitor</b>			
Chemical Name	wt(%)	Chemical Formula	CAS Registry No.
Sodium orthovanadate	0.19%	Na <sub>3</sub> O <sub>4</sub> V	13408-09-8

### 4. FIRST AID MEASURES

**GENERAL ADVICE** : Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

**INHALATION** : Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

**EYE** : Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

**SKIN** : Remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists, consult a physician.

**INGESTION** : Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Consult a physician.

### 5. FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA** : Carbon dioxide, dry chemical, foam water.

**FIRE & EXPLOSION HAZARDS** : Toxic, irritating fumes or smoke may be emitted.

**FIRE FIGHTING INSTRUCTIONS**

: Self-contained breathing apparatus required.

Firefighters should wear the usual protective gear.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS**

: Firemen should wear normal protective equipment (full bunker gear) and positive-pressure self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

: Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid raising dust and avoid contact with skin and eyes.

### ENVIRONMENTAL PRECAUTIONS

: Prevent spills from entering sewers, watercourses or low areas.

### METHODS FOR CLEANING UP

: Do not touch spilled material without suitable protection (See section 8). After materials completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove clean, or dispose of contaminated clothing.

## 7. HANDLING AND STORAGE

**HANDLING** : Protect against physical damage. Avoid breathing dust. Wash thoroughly after handling. Keep out of reach of children. Avoid contact with skin, eyes and clothing. Handle material with suitable protection away from source of heat or ignition and use non-sparking type tools.

**STORAGE** : Store away from sunlight in well-ventilated dry place at room temperature. Keep container tightly closed. Store away from oxidizers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### ENGINEERING MEASURES

: Use exhaust ventilation to keep airborne concentrations below exposure limits.  
Use only with adequate ventilation.

**VENTILATION** : Local Exhaust ; Necessary,  
Mechanical (General); Recommended

### PERSONAL PROTECTION;

#### Respiratory protection

: Use a NIOSH/MSHA or European Standard EN149 approved respirator if the vapor concentrations exceed

regulatory guidelines.

Hand protection : Chemical resistant gloves  
Eye protection : Safety glasses (Chemical goggles)  
Skin protection : Protective clothing

#### CONTROL PARAMETER

OSHA Final Limits : None established  
ACGIH TLV(s) : None established

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### EzRIPA Lysis Buffer

Appearance : liquid (clear)  
Odor : Odorless  
pH : 7 ~ 8  
Boiling Point / Boiling Range  
: Not available  
Melting Point / Melting Range  
: Not available  
Decomposition Temperature  
: Not available  
Flash Point : Not available  
Auto Ignition Temperature  
: Not available  
Flammability : Not flammable  
Explosive Properties : Not available  
Oxidizing Properties : Not available  
Vapor Pressure : Not available  
Relative Density : Not available  
Solubility : Not available  
Partition Coefficient(n-octanol /water)  
: Not available  
Viscosity : Not available  
Vapor Density : Not available  
Evaporation Rate : Not available

**Protease Inhibitor**

Appearance : liquid (clear)  
Odor : Odorless  
pH : Not available

Boiling Point / Boiling Range  
: Not available

Melting Point / Melting Range  
: Not available

Decomposition Temperature  
: Not available

Flash Point : Not available

Auto Ignition Temperature  
: Not available

Flammability : Not flammable

Explosive Properties : Not available

Oxidizing Properties : Not available

Vapor Pressure : Not available

Relative Density : Not available

Solubility : Not available

Partition Coefficient(n-octanol /water)  
: Not available

Viscosity : Not available

Vapor Density : Not available

Evaporation Rate : Not available

**Phosphatase Inhibitor**

Appearance : liquid (clear)  
Odor : Odorless  
pH : Not available

Boiling Point / Boiling Range  
: Not available

Melting Point / Melting Range  
: Not available

Decomposition Temperature  
: Not available

Flash Point : Not available

Auto Ignition Temperature : Not available  
Flammability : Not flammable  
Explosive Properties : Not available  
Oxidizing Properties : Not available  
Vapor Pressure : Not available  
Relative Density : Not available  
Solubility : Not available  
Partition Coefficient(n-octanol /water) : Not available  
Viscosity : Not available  
Vapor Density : Not available  
Evaporation Rate : Not available

## **10. STABILITY AND REACTIVITY**

### CONDITIONS TO AVOID

: Sunlight, heat, open flames, high temperature, sparks,  
static electrical charge and other ignition sources, moisture

STABILITY : Stable under recommended storage conditions.

### MATERIALS TO AVOID

: Oxidizers, alkalis, Strong Acids

### HAZARDOUS REACTIONS / DECOMPOSITION PRODUCTS

: Carbon monoxide, Nitrogen oxide, sulfur oxides, methyl mercaptan and formaldehyde may be formed.

## **11. TOXICOLOGICAL INFORMATION**

EzRIPA Lysis kit : Not available

Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-  
( CAS Registry No. 9036-19-5)

ACUTE TOXICITY(oral/dermal/inhalation) :

LD50(oral,rat): 4190mg/kg(FCTOD7 22,665, 1984)

LD50(oral,mouse): 3500mg/kg(JAPMA8 38,428,1949)

LD50(ipr,rat): 770mg/kg(FCTOD7 22,665, 1984)

SKIN CORROSION/IRRITATION : Not available  
EYE DAMAGE/EYE IRRITATION : rabbit; 1%; Severe(JQAPMA8 38,428,1949)  
RESPIRATORY OR SKIN SENSITIZATION : Not available  
GERM CELL MUTAGENICITY : DNA inhibition; human; lymphocyte;  
5ppm(ENPBBC 5,84,1975)  
TOXIC TO REPRODUCTION : Not available  
STOST-SINGLE EXPOSURE : Not available  
STOST-REPEATED EXPOSURE : Not available  
ASPIRATION TOXICITY : Not available  
CARCINOGENICITY : Not available  
ADDITIONAL INFORMATION ;  
NTP : Not listed  
IARC : Not listed  
OSHA : Not listed  
ACGIH : Not listed

## **12. ECOLOGICAL INFORMATION**

ECOTOXICITY : LC50(orange-red killifish): 28mg/L/96hr  
PERSISTENCE AND DEGRADABILITY : This material is the recalcitrant.  
BIOACCUMULATION POTENTIAL : This material is not high bioaccumulatable.  
MOBILITY IN SOIL : Not available  
OTHER ADVERSE EFFECTS  
: Not available

## **13. DISPOSAL CONSIDERATIONS**

Comply with all federal, state and local regulation.  
Do not dump this product into sewers, on the ground or into any body of water.

## **14. TRANSPORT INFORMATION**

IATA : Not Restricted.  
MARINE POLLUTANT : NO  
DOT (Department of Transportation):Not a Hazardous Material for DOT shipping.

**15. REGULATORY INFORMATION**

US REGULATIONS ;

TSCA/4(e) ITC Prio. List, TSCA/8(a) Prel. Asses. Inf. Rule,

TSCA/8(d) Heal. Saf. Data Rule,

Canad. WHMIS IDL 1% conc.

EPA : CERCLA RQ= Not listed

EPCRA TPQ= Not listed

OSHA : TQ= Not listed

**16. OTHER INFORMATIONS**

This information is furnished without warranty, express or implied, expect that it is accurate to the best knowledge of ATTO Corporation. It relates only to the specific product designated herein, and does not relate to use in combination with any other material or in any process. ATTO Corporation assumes no legal responsibility for use of or reliance upon this information.