

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
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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			
RIPA Lysis buffer			
Chemical Name	wt(%)	Chemical Formula	CAS Registry No.
Poly(oxy-1,2-ethanediyl), .alpha.-[[1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	1.0%	(C2H4O) _n C14H22O	9036-19-5
Sodium chloride	0.9%	ClNa	7647-14-5
Protease Inhibitor			
Chemical Name	wt(%)	Chemical Formula	CAS Registry No.
Dimethyl sulfoxide	90%	C2H6OS	67-68-5
Phosphatase inhibitor			
Chemical Name	wt(%)	Chemical Formula	CAS Registry No.
Sodium orthovanadate	0.19%	Na3O4V	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

UN number

ADR/RID : - IMDG : - IATA : -

Transport hazard class

ADR/RID : - IMDG : - IATA : -

Environmental hazards

ADR/RID : no IMDG Marine pollutant:no IATA : 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.