



Econo-PS1

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 08/23/2013

Supersedes: 08/30/2012

Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Product Identifier

Product form: Substance

Product name: Econo-PS1

Chemical name: Ammonium Persulfate

CAS No.: 7727-54-0

Synonyms: Powdered Breaker

Intended Use Of The Product

Use of the substance/mixture: Breaker. For professional use only.

Name, Address, And Telephone Of The Responsible Party

Economy® Polymers & Chemicals

435 E. Anderson Road

77047 Houston, TX

T 713-723-8416; 1-800-231-2066

www.economypolymers.com

Emergency Telephone Number

Emergency number : CHEMTREC 1-800-424-9300 (US); 703-527-3887 (International, collect calls are accepted)

SECTION 2: HAZARDS IDENTIFICATION

Classification Of The Substance Or Mixture

GHS-US classification

Ox. Sol. 3 H272

Acute Tox. 4 (Oral) H302

Skin Irrit. 2 H315

Eye Irrit. 2A H319

Resp. Sens. 1 H334

Skin Sens. 1 H317

STOT SE 3 H335

Label Elements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H272 - May intensify fire; oxidizer

H302 - Harmful if swallowed

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 - May cause respiratory irritation

Precautionary statements (GHS-US) :

P210 - Keep away from heat/sparks/open flames/hot surfaces - No smoking.

P220 - Keep/Store away from clothing, combustible materials, and other incompatibilities.

P221 - Take any precaution to avoid mixing with combustible materials, powdered metals, reducing agents, and/or strong bases.

P261 - Avoid breathing dust.

P264 - Wash hands, forarms, and exposed areas thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

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P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P284 - [In case of inadequate ventilation] wear respiratory protection.
P301+P312 - If swallowed, call a doctor if you feel unwell.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor if you feel unwell.
P321 - Specific treatment (see section 4).
P330 - If swallowed, rinse mouth.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use water spray for extinction.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards Not available

Unknown acute toxicity (GHS US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Name	Product Identifier	% (w/w)	GHS-US classification
Diammonium peroxodisulfate	(CAS No.) 7727-54-0	100	Ox. Sol. 3, H272 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description Of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Call a POISON CENTER/doctor/physician if you feel unwell. Keep at rest and in a position comfortable for breathing.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell.

Most Important Symptoms And Effects Both Acute and Delayed

General: Harmful if swallowed. Irritation to eyes, skin and respiratory tract. Exposure may produce an allergic reaction.

Inhalation: May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Contact: Causes skin irritation. May cause an allergic skin reaction.

Eye Contact: Causes eye irritation.

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Ingestion: Swallowing a small quantity of this material will result in serious health hazard.

Chronic symptoms: Inhalation may cause allergic respiratory reaction with asthma-like symptoms and difficulty breathing. May cause an allergic skin reaction.

Indication Of Any Immediate Medical Attention And Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: Do not use carbon dioxide or other gas filled extinguishers; they are not effective against decomposing persulfate.

Special Hazards Arising From The Substance Or Mixture

Fire hazard: May intensify fire; oxidizer. Will burn if exposed to heat, and in addition, will accelerate the burning of other combustibles, resulting in more rapid spread of fire.

Explosion hazard: Risk of fire and explosion on contact with combustible substances or reducing agents.

Reactivity: May cause or intensify fire; oxidizer.

Advice For Firefighters

Precautionary measures fire: Exercise caution when fighting any chemical fire.

Firefighting instructions: Fight fire remotely due to the risk of explosion.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Sulfur oxides. Nitrogen oxides.

Reference To Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment And Emergency Procedures

General measures: Avoid all eyes and skin contact and do not breathe vapour and mist. Avoid contact with most metals, carbides, hydrogen sulfide, turpentine, organic acids, combustibles (wood, paper, cotton) and other organic and readily oxidized materials. Avoid generating dust.

For Non-Emergency Personnel

Protective equipment: Use appropriate personal protection equipment (PPE).

Emergency procedures: Stop leak if safe to do so. Evacuate unnecessary personnel.

For Emergency Personnel

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Stop leak if safe to do so. Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods And Material For Containment And Cleaning Up

For containment: Stop the flow of material, if this is without risk. Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material.

Methods for cleaning up: Clear up spills immediately and dispose of waste safely. Avoid generating dust during clean-up of spills.

Reference To Other Sections

See heading 8, exposure controls and personal protection.

SECTION 7: HANDLING AND STORAGE

Precautions For Safe Handling

Additional hazards when processed: Hazardous waste due to potential risk of explosion on contact with incompatible materials.

Hygiene measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

Conditions For Safe Storage, Including Any Incompatibilities

Technical measures: Comply with applicable regulations.

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Storage conditions: Store in a dry, cool (< 85 °F, < 29°C) and well-ventilated place away from other materials. Store away from direct sunlight or other heat sources. Keep container closed when not in use. Product has a shelf life of twelve (12) months. Store locked up.

Incompatible materials: Reducing agents. Strong bases. Powdered metals. Combustible material.

Specific End Use(s)

Breaker. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Diammonium peroxodisulfate (7727-54-0)		
Alberta	OEL TWA (mg/m ³)	0.1 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	0.1 mg/m ³

Exposure Controls

Appropriate engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal protective equipment: Gloves. Insufficient ventilation: wear respiratory protection. Face shield. Protective goggles. Fireproof clothing.



Materials for protective clothing: Chemically resistant materials and fabrics

Hand protection: Wear chemically resistant protective gloves.

Eye protection: Chemical goggles or safety glasses.

Skin and body protection: Wear fireproof clothing and protective shoes or boots.

Respiratory protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of dust are expected to exceed exposure limits.

Other information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information On Basic Physical And Chemical Properties

Physical state	: Solid
Appearance	: White crystalline solid or powder
Odour	: Odorless
Odour threshold	: Not available
pH	: 5.2 (1% solution)
Relative evaporation rate (butylacetate=1)	: Not available
Melting point	: 120 °C (248 °F)
Boiling point	: Decomposes
Flash point	: Not flammable
Auto-ignition temperature	: No evidence of combustion up to 600 °C (112 °F)
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower flammable limit	: Not available
Upper flammable limit	: Not available
Vapour pressure	: 1.47 X 10 ⁻²³ mmHg at 25 °C
Relative vapour density at 20 °C	: Not available
Relative density/Specific gravity	: 1.26 (water = 1)
Molecular weight	: 228.2 g/mol
Solubility	: 850 g/L at 25 °C

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Log Pow/Log Kow	: Not available
Viscosity (kinematic, dynamic)	: Not available
Explosion data	: Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity May cause or intensify fire; oxidizer.

Chemical Stability Stable at standard temperature and pressure.

Possibility Of Hazardous Reactions Hazardous polymerization will not occur.

Conditions To Avoid Direct sunlight. Extremely high or low temperatures. Sparks. Open flame.

Incompatible Materials Combustible materials. Strong bases. Reducing agents. Powdered metals.

Hazardous Decomposition Products Carbon oxides (CO, CO₂). Nitrogen oxides. Sulfur oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Information On Toxicological Effects - Product

Acute toxicity : Harmful if swallowed.

LD50 and LC50 Data: Not available

Skin corrosion/irritation: Causes skin irritation [pH: 5.2 (1% solution)].

Serious eye damage/irritation: Causes serious eye irritation [pH: 5.2 (1% solution)].

Respiratory or skin sensitisation: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Not classified

Specific target organ toxicity (repeated exposure): Not classified

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): May cause respiratory irritation.

Aspiration hazard: Not classified

Potential Adverse human health effects and symptoms: Harmful if swallowed.

Symptoms/injuries after inhalation: May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Symptoms/injuries after skin contact: Causes skin irritation. May cause an allergic skin reaction.

Symptoms/injuries after eye contact: Causes eye irritation.

Symptoms/injuries after ingestion: Swallowing a small quantity of this material will result in serious health hazard.

Chronic symptoms: Inhalation may cause allergic respiratory reaction with asthma-like symptoms and difficulty breathing. May cause an allergic skin reaction.

Information On Toxicological Effects - Ingredient(s)

LD50 and LC50 Data

Diammonium peroxodisulfate (7727-54-0)	
LD50 oral rat	495 mg/kg
LC50 inhalation rat (mg/l)	520 mg/l (Exposure time: 1 h)

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Diammonium peroxodisulfate (7727-54-0)	
LC50 fish 1	103 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	120 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	76.3 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

Persistence And Degradability

Econo-PS1 (7727-54-0)	
Persistence and degradability	Not established.

Bioaccumulative Potential

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Econo-PS1 (7727-54-0)	
Bioaccumulative potential	Not established.
Diammonium peroxodisulfate (7727-54-0)	
BCF fish 1	(no bioaccumulation expected)

Mobility In Soil Not available

Other Adverse Effects

Other information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional information: Hazardous waste due to potential risk of explosion.

SECTION 14: TRANSPORT INFORMATION

In accordance with ICAO/IATA/DOT/TDG

UN Number

UN-No.(DOT): 1444

DOT NA no.: UN1444

UN Proper Shipping Name

Proper Shipping Name (PSN) : Ammonium persulfate
Department of Transportation (DOT) Hazard Classes : 5.1 - Class 5.1 - Oxidizer 49 CFR 173.128
Hazard labels (DOT) : 5.1 - Oxidizer



Packing group (DOT) : III - Minor Danger

DOT Special Provisions (49 CFR 172.102) : A1 - Single packagings are not permitted on passenger aircraft.
A29 - Combination packagings consisting of outer expanded plastic boxes with inner plastic bags are not authorized for transportation by aircraft.
IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2).
IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner.
T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2)
TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this

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subchapter.

DOT Packaging Exceptions (49 CFR 173.xxx)	: 152
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 213
DOT Packaging Bulk (49 CFR 173.xxx)	: 240

Additional information

Emergency Response Guide (ERG) Number : 140

Overland transport Not regulated for transport

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 25 kg

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 100 kg

SECTION 15: REGULATORY INFORMATION

US Federal regulations

Econo-PS1 (7727-54-0)	
SARA Section 311/312 Hazard Classes	Reactive hazard Immediate (acute) health hazard

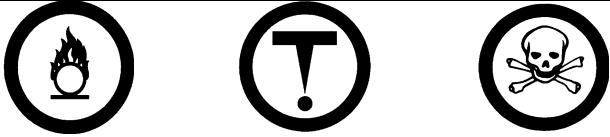
Diammonium peroxodisulfate (7727-54-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State regulations

Diammonium peroxodisulfate (7727-54-0) U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet
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Canadian regulations

Econo-PS1 (7727-54-0)	
WHMIS Classification	Class C - Oxidizing Material Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
	

Diammonium peroxodisulfate (7727-54-0)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class C - Oxidizing Material Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

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SECTION 16: OTHER INFORMATION

Indication of changes : 08/23/2013

Other information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Ox. Sol. 3	Oxidising solids Category 3
Resp. Sens. 1	Respiratory sensitisation Category 1
Skin Irrit. 2	skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitisation Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H272	May intensify fire; oxidizer
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation

Party Responsible For The Preparation Of This Document:

Economy Polymers & Chemicals
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713-723-8416; 1-800-231-2066

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS