

SECTION 1: Identification

1.1. Identification

Product form : Article
 Product name : GG308, GG309, GG310

1.2. Recommended use and restrictions on use

Use of the substance/ : Use gas pressure to do mechanical work
 mixture Restrictions on : Uses other than listed on the manufacturer product label

1.3. Supplier

EaglePicher Technologies, LLC
 1215 W. C St.
 Joplin, MO, 64801
 T 417-623-8000 inquiry@eaglepicher.com

1.4. Emergency telephone number

Emergency number : Chemtrec 800-424-9300 Chemtrec 703-527-3887 (outside of US and Canada);
 800-681-9531 (Mexico)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Explosive Category 1.4 H204 Fire or projection hazard
 Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
 Hazard statements (GHS US) : H204 - Fire or projection hazard
 Precautionary statements (GHS US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other
 ignition sources. No smoking
 P240 - Ground/Bond container and receiving equipment.
 P250 - Do not subject to grinding/shock/friction.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P370+P380 - In case of fire: Evacuate area.
 P372 - Explosion risk in case of fire.
 P373 - DO NOT fight fire when fire reaches explosives.
 P374 - Fight fire with normal precautions from a reasonable distance.
 P401 - Store in accordance with local regulations on explosives.
 P501 - Dispose of contents/container to hazardous or special waste collection
 point, in accordance with local, regional, national and/or international regulation.

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2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : This product is considered an article and does not present health or physical hazards in its intended and shipped form. Any action which damages the article may expose users to health and physical hazards.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Pyrotechnic oxidizer 3*	CAS-No.: Trade Secret	30 – 52	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 Resp. Sens. 1, H334 Skin Sens. 1, H317 Muta. 1B, H340 Carc. 1A, H350 STOT RE 1, H372
Pyrotechnic Oxidizer*	CAS-No.: Trade Secret	12 – 16	Ox. Sol. 1, H271 Acute Tox. 4 (Oral), H302

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret. Full text of hazard classes and

H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : None under normal conditions.
Symptoms/effects after eye contact : None under normal conditions.
Symptoms/effects after ingestion : None under normal conditions.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : No fire hazard.
Explosion hazard : Explosion risk in case of fire. Hazardous
Decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Evacuate area. Do not fight fire when fire reaches explosives. Fight fire with normal precautions from a reasonable distance. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Do not subject to grinding, shock, friction. Wear personal protective equipment.

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Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Keep cool. Protect from sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available	
Initiator	
No additional information available	
Pyrotechnic Oxidizer	
No additional information available	
Pyrotechnic fuel	
No additional information available	
Pyrotechnic fuel 2	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	3 mg/m ³ (respirable particulate matter)
Pyrotechnic fuel 3	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 mg/m ³
ACGIH OEL STEL	10 mg/m ³
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Pyrotechnic Oxidizer 2	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 mg/m ³ (respirable particulate matter)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA	10 mg/m ³ (fume) 15 mg/m ³ (total dust (Rouge)) 5 mg/m ³ (respirable fraction (Rouge))
Pyrotechnic oxidizer 3	
No additional information available	
Diluent	
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA	20 mppcf

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8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Color	: Gray
Odor	: Odorless
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Fire or projection hazard.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) Acute : Not classified.
toxicity (dermal) Acute : Not classified.
toxicity (inhalation) : Not classified.

Pyrotechnic Oxidizer	
ATE US (oral)	500 mg/kg body weight
Pyrotechnic oxidizer 3	
LD50 dermal rabbit	57 mg/kg (Source: ECHA_API)
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	100 ppmV/4h
ATE US (vapors)	0.5 mg/l/4h
ATE US (dust, mist)	0.05 mg/l/4h

Skin corrosion/irritation : Not classified.
Serious eye damage/irritation : Not classified.
Respiratory or skin sensitization : Respiratory sensitization: Not classified. Skin sensitization: Not classified.
Germ cell mutagenicity : Not classified.
Carcinogenicity : Not classified.

Pyrotechnic oxidizer 3	
IARC group	1 - Carcinogenic to humans

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Pyrotechnic oxidizer 3

In OSHA Hazard Communication Carcinogen List : Yes

Reproductive toxicity : Not classified.
STOT-single exposure : Not classified.
STOT-repeated exposure : Not classified.

Pyrotechnic oxidizer 3

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified.
Viscosity, kinematic : Not applicable.
Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : None under normal conditions.
Symptoms/effects after eye contact : None under normal conditions.
Symptoms/effects after ingestion : None under normal conditions.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

UN-No. (DOT) : UN0471
UN-No. (IMDG) : 0471
UN-No. (IATA) : 0471

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14.2. UN proper shipping name

Proper Shipping Name (DOT) : Articles, explosive, n.o.s. (barium chromate)
Proper Shipping Name (TDG) : ARTICLES, EXPLOSIVE, N.O.S.
Proper Shipping Name (IMDG) : ARTICLES, EXPLOSIVE, N.O.S. (barium chromate)
Proper Shipping Name (IATA) : Articles, explosive, n.o.s. (barium chromate)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 1.4E
Hazard labels (DOT) : 1.4E



IMDG

Transport hazard class(es) (IMDG) : 1.4E
Hazard labels (IMDG) : 1.4E



IATA

Transport hazard class(es) (IATA) : 1.4E
Hazard labels (IATA) : 1.4E



14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
UN-No.(DOT) : UN0471
DOT Special Provisions (49 CFR 172.102) : 101 - The name of the particular substance or article must be specified.
DOT Packaging Non Bulk (49 CFR 173.xxx) : 62
DOT Quantity Limitations Passenger aircraft/ rail (49 CFR 173.27) : Forbidden
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 75 kg
DOT Vessel Stowage Location : 03 - The material may be stowed "on deck" or "under deck" on a cargo vessel (up to 12 passengers) and "on deck" in closed cargo transport units on a passenger vessel.
DOT Vessel Stowage Other : 25 - Protected from sources of heat

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IMDG

Special provision (IMDG)	: 178, 274
Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P101
EmS-No. (Fire)	: F-B - FIRE SCHEDULE Bravo - EXPLOSIVE SUBSTANCES AND ARTICLES
EmS-No. (Spillage)	: S-X - SPILLAGE SCHEDULE X-Ray - EXPLOSIVE ITEMS AND ARTICLES
Stowage category (IMDG)	: 03

IATA

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: 101
CAO max net quantity (IATA)	: 75kg
Special provision (IATA)	: A62, A802
ERG code (IATA)	: 1L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

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SARA Section 311/312 Hazard Classes	Physical hazard - Explosive
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All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

Pyrotechnic oxidizer 3

Listed on IARC (International Agency for Research on Cancer) Listed on Thailand Existing Chemicals Inventory (DIW)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Pyrotechnic Oxidizer()	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Massachusetts - Right To Know List

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Component	State or local regulations
Pyrotechnic oxidizer 3()	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Massachusetts - Right To Know List

SECTION 16: Other information

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Full text of hazard classes and H-statements	
H204	Fire or projection hazard
H271	May cause fire or explosion; strong oxidizer
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H317	May cause an allergic skin reaction
H330	Fatal if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H340	May cause genetic defects
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure

Safety Data Sheet (SDS), USA - HSI

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