Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • **Red Armor Fuel Treatment**

Synonyms • 594993

Product Code • 7550001; 7550012

Relevant identified uses of the substance or mixture and uses advised against

Recommended use • Fuel stabilizer

Restrictions on use • Do NOT use in diesel fuel

Details of the supplier of the safety data sheet

Manufacturer • Gold Eagle Co.

4400 S. Kildare Avenue
Chicago, IL 60632-4372
United States
http://www.goldeagle.com/

Telephone (General) • 773-376-4400

Emergency telephone number

Manufacturer • 1-800-535-5053 - (INFOTRAC #22283)

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012 • Flammable Liquids 4
Aspiration 1
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Carcinogenicity 2
Reproductive Toxicity 2

Label elements

OSHA HCS 2012

DANGER

Hazard statements • Combustible liquid
May be fatal if swallowed and enters airways
May cause drowsiness or dizziness
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.

Precautionary statements

Prevention •
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
Avoid breathing mist/vapours/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response •
In case of fire: Use appropriate media for extinction.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Do NOT induce vomiting.
IF exposed or concerned: Get medical advice/attention.

Storage/Disposal •
Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Other information

NFPA

Section 3 - Composition/Information on Ingredients

Substances

• Material does not meet the criteria of a substance.

Mixtures

Composition				
Chemical Name	**Identifiers**	**%**	**LD50/LC50**	**Classifications According to Regulation/Directive**
Distillates (petroleum), hydrotreated light	**CAS:**64742-47-8	90% TO 100%	NDA	**OSHA HCS 2012:** Flam. Liq. 4; Asp. Tox. 1; STOT SE 3: Narc.
Proprietary additive	*Proprietary*	0% TO 4%	NDA	**OSHA HCS 2012:** Not Classified
Proprietary additive	*Proprietary*	0% TO 1.197%	Inhalation-Rat LC50 • >590 mg/m³ 4 Hour(s) Skin-Rabbit LD50 • >2 mL/kg	**OSHA HCS 2012:** Not Classified
Proprietary additive	*Proprietary*	0% TO 0.897%	NDA	**OSHA HCS 2012:** Not Classified
Proprietary additive	*Proprietary*	0% TO 0.6%	NDA	**OSHA HCS 2012:** Not Classified
Proprietary additive	*Proprietary*	0% TO 0.375%	Ingestion/Oral-Rat LD50 • 5 g/kg Inhalation-Rat LC50 •	**OSHA HCS 2012:** Flam. Liq. 3; STOT SE 3: Narc.; STOT RE 2 (Blood)

			18000 mg/m³ 4 Hour(s)	
Proprietary additive	*Proprietary*	0% TO 0.3%	Ingestion/Oral-Rat LD50 • 8400 mg/kg	**OSHA HCS 2012:** Eye Irrit. 2; Repr. 2; STOT SE 3: Narc.
Proprietary additive	*Proprietary*	0% TO 0.151%	Skin-Rabbit LD50 • >20 g/kg Ingestion/Oral-Rat LD50 • 490 mg/kg	**OSHA HCS 2012:** Flam. Sol. 2; Acute Tox. 4 (Oral); Skin Irrit. 2; Muta. 2; Carc. 2; Repr. 2; STOT SE 3: Narc.; STOT RE 1 (Blood, Eyes, Oral, Inhl)
Proprietary additive	*Proprietary*	0% TO 0.147%	NDA	**OSHA HCS 2012:** Not Classified
Proprietary additive	*Proprietary*	0% TO 0.05%	Inhalation-Rat LC50 • 24000 mg/m³ 4 Hour (s) Ingestion/Oral-Rat LD50 • 5000 mg/kg	**OSHA HCS 2012:** Exposure limit(s)
Proprietary additive	*Proprietary*	0% TO 0.05%	NDA	**OSHA HCS 2012:** Exposure limit(s)
Proprietary additive	*Proprietary*	0% TO 0.05%	Ingestion/Oral-Rat LD50 • 4300 mg/kg Inhalation-Rat LC50 • 5000 ppm 4 Hour(s) Skin-Rabbit LD50 • >1700 mg/kg	**OSHA HCS 2012:** Exposure limit(s)
Proprietary additive	*Proprietary*	< 0.00000015%	Ingestion/Oral-Rat LD50 • 930 mg/kg Inhalation-Rat LC50 • 10000 ppm 7 Hour(s) Skin-Rabbit LD50 • >9400 µL/kg	**OSHA HCS 2012:** Exposure limit(s)

Section 4: First-Aid Measures

Description of first aid measures

Inhalation
- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin
- In case of burns, immediately cool affected skin for as long as possible with cold water. Donot remove clothing if adhering to skin. Remove and isolate contaminated clothing. Wash skin with soap and water.

Eye
- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contactlenses, if present, after the first five minutes, then continue rinsing eye. Get medical attention immediately.

Ingestion
- Do NOT induce vomiting. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media • Use carbon dioxide, dry chemical, foam and/or water fog.

Unsuitable Extinguishing Media
- No data available

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards
- Containers may explode when heated.
Vapor explosion hazard indoors, outdoors or in sewers.
Combustible material: may burn but does not ignite readily.
Many liquids are lighter than water.
Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
Runoff to sewer may create fire or explosion hazard.
Vapors may form explosive mixtures with air.
Vapors may travel to source of ignition and flash back.
Water may cause frothing.

Hazardous Combustion Products
- No data available

Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
Move containers from fire area if you can do it without risk.
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions
- Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE) Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Containment/Clean-up Measures
- Stop leak if you can do it without risk.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Use clean non-sparking tools to collect absorbed material.
A vapor suppressing foam may be used to reduce vapors.
All equipment used when handling the product must be grounded.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Section 7 - Handling and Storage

Precautions for safe handling

Handling
- Use only in well ventilated areas. Avoid contact with heat and ignition sources. Take precautionary measures against static charges. Do not use sparking tools. All equipment used when handling the product must be grounded. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing vapors, dust, or spray mist. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap

and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities

Storage

- Store in a tightly closed container. Keep away from incompatible materials. Store in a well-ventilated place. Store in an area equipped with automatic sprinklers or fire extinguishing system. Store below 150° F. Empty containers contain product residues, assume emptied containers to have same hazards as full containers.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Proprietary additive (Proprietary)	TWAs	50 ppm TWA	50 ppm TWA; 245 mg/m3 TWA	50 ppm TWA; 245 mg/m3 TWA
Proprietary additive (Proprietary)	TWAs	10 ppm TWA	10 ppm TWA; 50 mg/m3 TWA	10 ppm TWA; 50 mg/m3 TWA
	STELs	15 ppm STEL	15 ppm STEL; 75 mg/m3 STEL	Not established
Proprietary additive (Proprietary)	TWAs	100 ppm TWA	Not established	100 ppm TWA; 435 mg/m3 TWA
	STELs	150 ppm STEL	Not established	Not established
Proprietary additive (Proprietary)	TWAs	Not established	25 ppm TWA; 125 mg/m3 TWA	Not established
Proprietary additive (Proprietary)	TWAs	Not established	25 ppm TWA; 125 mg/m3 TWA	Not established
Proprietary additive (Proprietary)	TWAs	Not established	25 ppm TWA; 125 mg/m3 TWA	Not established
Proprietary additive (Proprietary)	Ceilings	Not established	Not established	25 ppm Ceiling
	STELs	2.5 ppm STEL	1 ppm STEL	5 ppm STEL (see 29 CFR 1910.1028)
	TWAs	0.5 ppm TWA	0.1 ppm TWA	10 ppm TWA (applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028); 1 ppm TWA

Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use only appropriately classified electrical equipment.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene
NIOSH = National Institute of Occupational Safety and Health
OSHA = Occupational Safety and Health Administration
STEL = Short Term Exposure Limits are based on 15-minute exposures
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Red liquid with a solvent odor.
Color	Red	Odor	Solvent
Odor Threshold	No data available		
General Properties			
Boiling Point	180 °F(82.2222 °C)	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	= 0.8 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	3 Centistoke (cSt, cS) or mm2/sec @ 40 °C(104 °F)	Explosive Properties	No data available
Oxidizing Properties:	No data available		
Volatility			
Vapor Pressure	97 mmHg (torr)	Vapor Density	> 1 Air=1
Evaporation Rate	> 1 n-Butyl Acetate = 1	VOC (Wt.)	100 %
Volatiles (Vol.)	100 %		
Flammability			
Flash Point	> 141.5 °F(> 60.8333 °C)	UEL	0.8 %
LEL	7 %	Autoignition	No data available
Flammability (solid, gas)	Not relevant.		

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Excess heat. Incompatible materials.

Incompatible materials

- Strong oxidants.

Hazardous decomposition products

- Excessive heating and/or incomplete combustion will produce carbon monoxide.

Section 11 - Toxicological Information

Information on toxicological effects

Components		
Proprietary additive (0%	*Proprietary*	**Acute Toxicity:** Ingestion/Oral-Rat LDLo • 5 mL/kg; *Sense Organs and Special Senses:Olfaction:***Other changes**; *Sense Organs and Special Senses:Eye:***Other**; *Skin and Appendages:Other:***Hair**; Inhalation-Rat LC50 • >590 mg/m³ 4 Hour(s); Skin-Rabbit LD50 • >2 mL/kg; *Behavioral:***Somnolence (general depressed activity)**;

TO 1.197%)		*Behavioral*:**Changes in motor activity (specific assay)**; *Behavioral*:**Irritability**; **Irritation:** Skin-Rabbit • 500 µL 24 Hour(s) • Mild irritation
Proprietary additive (0% TO 0.151%)	*Proprietary*	**Acute Toxicity:** Ingestion/Oral-Guinea Pig LD50 • 1200 mg/kg; *Behavioral*:**Somnolence (general depressed activity)**; *Behavioral*:**Changes in motor activity (specific assay)**; Ingestion/Oral-Rat LD50 • 490 mg/kg; Ingestion/Oral-Mouse TDLo • 158 mg/kg; *Brain and Coverings*:**Other degenerative changes**; *Liver*:**Other changes**; *Biochemical:Metabolism (intermediary)*:**Lipids, including transport**; Inhalation-Human TCLo • 250 mg/m³; *Sense Organs and Special Senses:Eye*:**Lacrimation**; *Behavioral*:**Headache**; Skin-Rabbit LD50 • >20 g/kg; **Irritation:** Skin-Rabbit • 0.05 mL 24 Hour(s) • Severe irritation; **Multi-dose Toxicity:** Ingestion/Oral-Rat TDLo • 500 mg/kg 10 Day(s)-Intermittent; *Behavioral*:**Sleep**; *Lungs, Thorax, or Respiration*:**Dyspnea**; Ingestion/Oral-Rat TDLo • 4500 mg/kg 10 Day(s)-Intermittent; *Brain and Coverings*:**Other degenerative changes**; **Reproductive:** Ingestion/Oral-Mouse TDLo • 2400 mg/kg (7-14D preg); *Reproductive Effects:Effects on Newborn*:**Live birth index**; *Reproductive Effects:Effects on Newborn*:**Viability index (e.g., # alive at day 4 per # born alive)**; Ingestion/Oral-Rat TDLo • 4500 mg/kg (6-15D preg); *Reproductive Effects:Effects on Embryo or Fetus*:**Fetotoxicity (except death, e.g., stunted fetus)**; *Reproductive Effects:Specific Developmental Abnormalities*:**Other developmental abnormalities**; **Tumorigen / Carcinogen:** Inhalation-Mouse TCLo • 30 ppm 6 Hour(s) 2 Year(s)-Intermittent; *Tumorigenic*:**Neoplastic by RTECS criteria**; *Lungs, Thorax, or Respiration*:**Tumors**; Inhalation-Rat TCLo • 1575 mg/kg 105 Week(s)-Intermittent; *Tumorigenic*:**Carcinogenic by RTECS criteria**; *Sense Organs and Special Senses:Olfaction*:**Tumors**; Inhalation-Rat TCLo • 60 ppm 6 Hour(s) 105 Week(s)-Intermittent; *Tumorigenic*:**Carcinogenic by RTECS criteria**; *Sense Organs and Special Senses:Olfaction*:**Tumors**
Proprietary additive (0% TO 0.375%)	*Proprietary*	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 5 g/kg; Inhalation-Rat LC50 • 18000 mg/m³ 4 Hour(s); **Multi-dose Toxicity:** Inhalation-Rat TCLo • 100 ppm 6 Hour(s) 20 Day(s)-Intermittent; *Behavioral*:**Changes in motor activity (specific assay)**; *Behavioral*:**Analgesia**; *Behavioral*:**Alteration of operant conditioning**
Proprietary additive (0% TO 0.3%)	*Proprietary*	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 8400 mg/kg; *Behavioral*:**Somnolence (general depressed activity)**; *Behavioral*:**Tremor**; *Lungs, Thorax, or Respiration*:**Other changes**; **Irritation:** Eye-Rabbit • 100 µL 24 Hour(s) • Mild irritation; **Reproductive:** Inhalation-Mouse TCLo • 1500 ppm 6 Hour(s)(6-15D preg); *Reproductive Effects:Effects on Fertility*:**Post-implantation mortality**; *Reproductive Effects:Effects on Fertility*:**Litter size (e.g., # fetuses per litter; measured before birth)**; *Reproductive Effects:Effects on Embryo or Fetus*:**Fetotoxicity (except death, e.g., stunted fetus)**

GHS Properties	Classification
Acute toxicity	**OSHA HCS 2012** • Data lacking
Skin corrosion/Irritation	**OSHA HCS 2012** • Data lacking
Serious eye damage/Irritation	**OSHA HCS 2012** • Data lacking
Skin sensitization	**OSHA HCS 2012** • Data lacking
Respiratory sensitization	**OSHA HCS 2012** • Data lacking
Aspiration Hazard	**OSHA HCS 2012** • Aspiration 1
Carcinogenicity	**OSHA HCS 2012** • Carcinogenicity 2
Germ Cell Mutagenicity	**OSHA HCS 2012** • Data lacking
Toxicity for Reproduction	**OSHA HCS 2012** • Toxic to Reproduction 2
STOT-SE	**OSHA HCS 2012** • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
STOT-RE	**OSHA HCS 2012** • Data lacking

Potential Health Effects

Inhalation

Acute (Immediate)
- May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)
- No data available.

Skin

Acute (Immediate)
- Material is classified as non-irritant and non-corrosive using GHS criteria.

Chronic (Delayed)
- No data available.

Eye

Acute (Immediate)
- Material is classified as non-irritant using GHS criteria.

Chronic (Delayed)
- No data available.

Ingestion

Acute (Immediate)
- Material may be aspirated into lungs during ingestion and/or subsequent vomiting. Aspiration of this material will cause severe lung injury, chemical pneumonitis, pulmonary edema or death.

Chronic (Delayed)
- No data available.

Carcinogenic Effects
- Suspected of causing cancer. This product contains components that are considered carcinogenic by OSHA, IARC, NTP.

Carcinogenic Effects

	CAS	OSHA	IARC	NTP
Proprietary additive	Proprietary	Not Listed	Group 2B-Possible Carcinogen	Not Listed
Proprietary additive	Proprietary	Not Listed	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen
Proprietary additive	Proprietary	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen

Reproductive Effects
- Animal tests for components have shown adverse reproductive effects.

Key to abbreviations

LD = Lethal Dose
TC = Toxic Concentration
MLD = Mild
TD = Toxic Dose
SEV = Severe

Section 12 - Ecological Information

Toxicity

- Non-mandatory section - information about this substance not complied for this reason.

Persistence and degradability

- Non-mandatory section - information about this substance not complied for this reason.

Bioaccumulative potential

- Non-mandatory section - information about this substance not complied for this reason.

Mobility in Soil

- Non-mandatory section - information about this substance not complied for this reason.

Other adverse effects

- Non-mandatory section - information about this substance not complied for this reason.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	None applicable	Gasoline Additive, N.O.I.	NDA	NDA	NDA

Special precautions for user
- None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications
- Acute, Chronic

Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

Section 16 - Other Information

Revision Date
- 26/July/2018

Preparation Date
- 06/October/2016

Other Information
- Schedule B Number: 3811.90.0000.

Disclaimer/Statement of Liability
- Information presented herein is believed to be factual, as it has been derived from the works and opinions of persons believed to be qualified experts. However, nothing contained in this information is to be taken as warranty or representation for which the Gold Eagle Co. bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

Key to abbreviations

NDA = No Data Available