

Section 1: Identification	
Product Name:	EOS ZVI
Chemical Description:	Mixture; carbonyl iron powder in vegetable oil
Manufacturer:	EOS Asia Remediation Co., Ltd. 1F., No. 20, Anlin 3rd St., Yanchao, Kaohsiung, Taiwan 824 (P): +886-7-616-9827 www.eos-asia.com
Recommended Use:	Groundwater Bioremediation (environmental applications)
Restricted Use:	Not for human consumption
24-Hour Emergency Contact:	EOS Asia Remediation Co., Ltd.: Taiwan (P): +886-7-616-9827 ChemTel: International (P): 813-248-0585

Section 2: Hazard(s) Identification	
Hazard Classification:	Irritant (eye and skin)
Signal Word:	Warning
Hazard Statement(s):	Potential eye and skin irritant.
Pictograms:	
Precautionary Statement(s):	Not for human consumption. Protect from freezing. Do not store near excessive heat or oxidizers. Avoid contact with eyes and skin. Wear protective gloves and eye protection.

Section 3: Composition/Information on Ingredients		
Common Name(s)	CAS NO.	% by Weight
Soybean Oil	8001-22-7	40 - 45
Emulsifiers Trade Secret ^{1,2}	Proprietary	Specific proportion
Stabilizers Trade Secret ^{1,2}	Proprietary	Specific proportion
Carbonyl Iron	7439-89-6	45 - 55

1 – The precise composition of this product is proprietary information. A more complete disclosure will be provided to a physician in the event of a medical emergency.

2 – The soluble substrates and emulsifiers are generally recognized as safe.

Section 4: First-Aid Measures	
Routes of Exposure	Emergency First-Aid Procedures
Inhalation	Remove to fresh air.
Eye Contact	Flush with water for 15 minutes; if irritation persists see a physician.
Dermal	Wash with mild soap and water.
Ingestion	Product is non-toxic. If nausea occurs, induce vomiting and seek medical attention.

Section 5: Fire-Fighting Measures	
Extinguishing Media:	CO ₂ , foam, dry chemical Note: Water, fog and foam may cause frothing and spattering.
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus and chemical resistant clothing. Use water spray to cool fire exposed containers.
Fire Hazard(s):	Burning will cause oxides of carbon.

Section 6: Accidental Release Measures	
Personal Precautions:	Avoid contact with eyes and skin. Do not consume.
Emergency Procedures:	N/A
Methods & Materials used for Containment:	Compatible granular absorbent
Cleanup Procedures:	Spread compatible granular absorbent over spill area and sweep using broom and pan; dispose in appropriate receptacle. Clean area with water.

Section 7: Handling and Storage	
Safe Handling & Storage:	Do not store near excessive heat (> 150°C) or oxidizers.
Other Precautions:	Consumption of food and beverages should be prevented in work area where product is being used. After handling product, always wash hands and face thoroughly with soap and water before eating, drinking, or smoking.

Section 8: Exposure Controls/Personal Protection		
Exposure Limits		
OSHA PEL:	Vegetable Oil Mist	15 mg/m ³ (total) 5 mg/m ³ (respirable)
ACGIH TLV:	NE	NE
NIOSH REL:	Vegetable Oil Mist	10 mg/m ³ (total) 5 mg/m ³ (respirable)
Personal Protective Measures		
Respiratory Protection:	Not normally required. P95 respirator if aerosols might be generated.	

Hand Protection:	Protective gloves are recommended
Eye Protection:	Recommended
Engineering Measures:	Local exhaust ventilation if aerosols are generated
Hygiene Measures:	Wash promptly with soap & water if skin becomes irritated from contact.
Other Protection:	Wear appropriate clothing to prevent skin contact.

NE – Not Established

Section 9: Physical and Chemical Properties

Appearance:	Black	Explosive Limits:	NE
Odor:	Vegetable Oil	Vapor Pressure:	NE
Odor Threshold:	NE	Vapor Density:	Heavier than air
pH:	NE	Relative Density:	1.5 – 1.7
Melting Point/Freezing Point:	Liquid at room temperature	Solubility:	Easily soluble & dispersible
Boiling Point:	N/A	Partition coefficient:	NE
Flash Point:	>600°F (316°C)	Auto-ignition Temperature:	NE
Evaporation Rate:	NE	Decomposition Temperature:	N/A
Flammability (solid, gas):	NE	Viscosity:	2350 cP

NE – Not Established

N/A – Non-Applicable

Section 10: Stability and Reactivity

Stability:	Stable
Incompatibility:	Strong acids and oxidizers
Hazardous Decomposition Products:	Thermal decomposition may produce oxides of carbon
Hazardous Reactions/Polymerization:	Will not occur
Conditions to Avoid:	Do not expose to temperatures above 150°C

Section 11: Toxicological Information

Likely Routes of Exposure:	Ingestion, dermal and eye contact
Signs and Symptoms of Exposure:	None known
Health Hazards	
Acute:	Potential eye and skin irritant
Chronic:	None known
Carcinogenicity	
NTP:	No
IARC:	No
OSHA:	No

Section 12: Ecological Information (non-mandatory)

There is no data on the ecotoxicity of this product.

Section 13: Disposal Considerations (non-mandatory)

Waste Disposal Methods:	Dispose of according to Federal and local regulations for non-hazardous waste.
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Section 14: Transport Information (non-mandatory)

The product is not covered by international regulation on the transport of dangerous goods.

No transport warning required.

Section 15: Regulatory Information (non-mandatory)

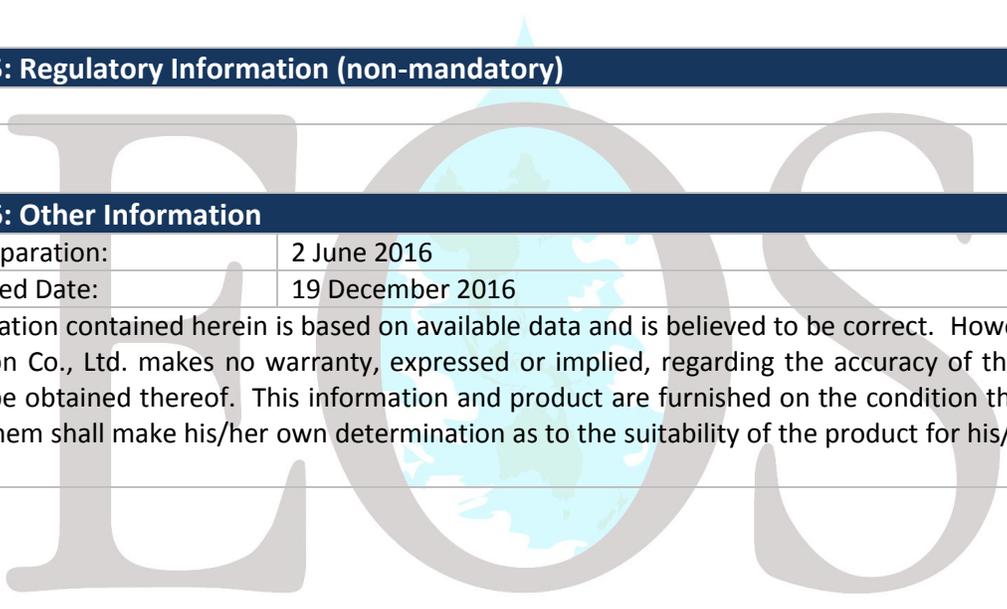
N/A

Section 16: Other Information

Date of Preparation:	2 June 2016
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Last Modified Date:	19 December 2016
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EOS Asia Remediation