

SAFETY DATA SHEET

SourceKill™

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SourceKill
SYNONYMS: Emulsified Zero Valent Iron, EZVI
PRODUCT CODES:

MANUFACTURER: TEA, Inc.
ADDRESS: 4021 W E Heck Ct, Unit I1.
Baton Rouge, LA 70816
PHONE: 225-767-3880

EMERGENCY PHONE: 225-767-3880
OTHER CALLS: 225-803-3180

PRODUCT USE: Environmental Remediation
PREPARED BY: TEA, Inc.

SECTION 1 NOTES:

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

ROUTES OF ENTRY:

ABSORPTION (SKIN) (EYES): YES

INGESTION: YES

INJECTION: NO

INHALATION: NO

SIGNAL WORD: WARNING HAZARD STATEMENT:

May cause skin irritation. May cause oral or gastrointestinal lining irritation if swallowed.

ACUTE HEALTH HAZARDS: None Known – Not believed to have harmful acute health effects

- **INGESTION/SWALLOWED:** (Unknown) **No harmful effects expected in amounts likely to be ingested by accident.**
- **Overexposure is unlikely in this form.**
- **Nonionic surfactants may produce localized irritation of the oral or gastrointestinal lining and cause vomiting and mild diarrhea.**

EYE: (Unknown)

- **Practical experience predicts, that the material may cause eye irritation.**
- **Prolonged eye contact may cause inflammation characterized by a temporary redness and watering of the eye (similar to windburn).**

- **Non-ionic surfactants can cause numbing of the cornea, which masks discomfort normally caused by other agents and leads to corneal injury. Irritation varies depending on the duration of contact, the nature and concentration of the surfactant.**

SKIN: (Unknown)

- **Prolonged contact may cause irritation or dryness of the skin.**
- **Skin contact is not thought to have harmful health effects, however the material may still produce health damage following entry through wounds, lesions or abrasions.**
- **Open cuts, abraded or irritated skin should not be exposed to this material.**

INHALATION: (Unknown)

The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified using animal models). Suitable control measures should be used in an occupational setting to prevent unnecessary exposures.

CHRONIC HEALTH HAZARDS: None Known – Not believed to have harmful chronic health effects

- **Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified using animal models); nevertheless, exposure by all routes should be minimized as a matter of course. Prolonged or repeated skin contact may cause degreasing with drying, cracking and dermatitis following.**

CARCINOGENIC EFFECTS: Not expected.

MUTAGENIC EFFECTS: Not expected.

TERATOGENIC EFFECTS: Not expected.

DEVELOPMENTAL TOXICITY: Not expected.

OSHA Regulatory Status: Some ingredients of this product are hazardous according to OSHA 29CFR 1910.1200. Those applicable ingredients include zero valent iron and muriatic acid.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None Known

CARCINOGENICITY

OSHA:	ACGIH:	NTP:	IARC:	OTHER:
NA	NA	NA	NA	NA

SECTION 2 NOTES:

SourceKill is a mixture and all of the component ingredients are not known to be carcinogenic.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT NAME: SourceKill
CASE NO.: None known
SYNONYMS: None known
PRODUCT CODES: None known

<u>INGREDIENT:</u>	<u>CAS NO.</u>	<u>% WT</u>	<u>SARA 313 REPORTABLE</u>
Water	7732-18-5	40 - 50	NA
Soybean oil	8001-22-7	30 - 40	NA
Iron	7439-89-6	8 - 20	NA
Sorbitan trioleate	26266-58-0	1 - 5	NA
Muriatic Acid	7647-01-0	<1	NA

<u>SourceKill</u>	<u>ppm</u>	<u>mg/m3</u>
OSHA PEL-TWA:	NA	NA
OSHA PEL STEL :	NA	NA
OSHA PEL CEILING:	NA	NA
ACGIH TLV-TWA:	NA	NA
ACGIH TLV STEL:	NA	NA
ACGIH TLV CEILING:	NA	NA

IMPURITIES: NONE

STABILIZING ADDITIVES: NONE

SECTION 3 NOTES:

SECTION 4: FIRST AID MEASURES

EYES:

- In case of eye contact, rinse opened eye for 15 minutes then consult medical personnel.

SKIN:

- Remove contaminated clothing. Wash contaminated clothing before reuse.
- In case of skin contact, immediately wash with water and soap, then rinse thoroughly.
- Seek medical assistance if redness, itching or a burning sensation develops.

INGESTION:

- In case of ingestion, seek immediate medical attention.
- Do not induce vomiting if ingested.
- Make doctor aware that the following symptoms may occur: nausea, cramps, gastric or intestinal disorders.

INHALATION:

- Not an expected route of exposure, but if cough develops, move individual to fresh air and consult medical personnel.

SECTION 4 NOTES:

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: NA
(% BY VOLUME) LOWER: NA

FLASH POINT:

F: >482°F
C: >250°C

METHOD USED: Closed Cup

AUTOIGNITION TEMPERATURE:

F: >760°F
C: >404°C

NFPA HAZARD CLASSIFICATION *SCALE: 4-extreme, 3-High, 2-Moderate, 1-Low, 0- Insignificant

HEALTH: 1
OTHER: None

FLAMMABILITY: 1

REACTIVITY: 0

HMIS HAZARD CLASSIFICATION

HEALTH: 1

FLAMMABILITY: 1

REACTIVITY: 0

PROTECTION:

EXTINGUISHING MEDIA: Multipurpose dry chemical fire extinguisher, sand, foam or carbon dioxide

SPECIAL FIRE FIGHTING PROCEDURES: Do not use water, or halogenated extinguishers.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

- Zero valent iron powder may self-combust when dry and has the potential to ignite paper towels, rags etc. Do not allow rags and paper towels with SourceKill on them to dry out.
- May accumulate hydrogen gas vapors in enclosed headspace.

HAZARDOUS DECOMPOSITION PRODUCTS: NA

SECTION 5 NOTES:

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Person Related Safety Measures: Wear protective equipment (See Section 8), keep unprotected persons away, ensure adequate ventilation

Environmental Safety Measures: NA

Measures for cleaning/collecting:

Clean spills with oil-absorbent materials

Dispose of contaminated material as waste according to:

- Section 7 for safe handling
- Section 8 for personal protective equipment
- Section 13 for disposal information

SECTION 6 NOTES:

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE:

- **It is preferred that all drums be stored out of direct sunlight.**
- Ensure good ventilation at the workplace.
- Keep ignition sources away.
- Do not store together with oxidizing and acidic materials.
- Store away from halogens.
- Contain spilled material and recover into drums. Plastic drums are recommended.

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Block off area from unprotected persons

VENTILATION: Ensure adequate ventilation

RESPIRATORY PROTECTION: NA

EYE PROTECTION: Safety Goggles

PROTECTIVE GLOVES: Rubberized gloves (nitrile, neoprene or PVC)

PROTECTIVE FOOTWEAR: Slip resistant footwear

SKIN PROTECTION: Outer clothing to minimize dermal contact.

WORK HYGIENIC PRACTICES: Surfaces covered with SourceKill may be slippery. Exercise care in handling or clean up to avoid injury due to falls.

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Grey to black, viscous liquid

ODOR: Soybean Oil (cooking oil) odor

PHYSICAL STATE: Liquid

pH AS SUPPLIED: N/A

pH (Other): N/A

BOILING POINT:

F: >572 °F

C: >300 °C

MELTING POINT:

F: -4 °F

C: -20 °C

FREEZING POINT:

F: NA

C: NA

VAPOR PRESSURE (mmHg):

F: NA

C: NA

VAPOR DENSITY (AIR = 1):

F: NA

C: NA

SPECIFIC GRAVITY (H₂O = 1):

1.05 – 1.10 g/cm³

EVAPORATION RATE (Butyl Acetate = 1): NA

SOLUBILITY IN WATER: Insoluble

PERCENT SOLIDS BY WEIGHT: 10 – 17%

PERCENT VOLATILE:

BY WT/ BY VOL

F: NA

C: NA

VOLATILE ORGANIC COMPOUNDS (VOC):

WITH WATER: NA LBS/GAL

WITHOUT WATER: NA LBS/GAL

MOLECULAR WEIGHT: NA

SECTION 9 NOTES:

SECTION 10: STABILITY AND REACTIVITY

	<u>STABLE</u>	<u>UNSTABLE</u>
STABILITY:	X	

CONDITIONS TO AVOID (STABILITY): Avoid improper handling and storage conditions.

INCOMPATIBILITY (MATERIAL TO AVOID): Acids, oxidizing agents, halogens

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: If combined with halogens will produce hydrogen gas.

HAZARDOUS POLYMERIZATION: NA

CONDITIONS TO AVOID (POLYMERIZATION): None

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: NA

IRON Toxicity to Animals: Acute oral toxicity (LD50): 30000 mg/kg [Rat].

Routes of Entry: Eye contact, inhalation, ingestion, and absorption.

LD50: Not available.

LC50: Not available.

Possible Toxic Effects on Humans: Potential irritant in case of skin contact, ingestion, or inhalation.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 11 NOTES:

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: NA

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Store waste materials into appropriately labeled drums, preferably out of direct sunlight. Moist conditions are preferred. Waste materials should be doused with water while in drums.

RCRA HAZARD CLASS: NA

SECTION 13 NOTES:

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: SourceKill

HAZARD CLASS: NA

ID NUMBER: NA

PACKING GROUP: None

LABEL STATEMENT:

WATER TRANSPORTATION

PROPER SHIPPING NAME: SourceKill

HAZARD CLASS: NA

ID NUMBER: NA

PACKING GROUP: None

LABEL STATEMENTS:

AIR TRANSPORTATION

PROPER SHIPPING NAME: SourceKill

HAZARD CLASS: NA

ID NUMBER: NA

PACKING GROUP: None

LABEL STATEMENTS:

OTHER AGENCIES:

SECTION 14 NOTES:

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS (No known regulations are in place for this product)

TSCA (TOXIC SUBSTANCE CONTROL ACT): NA

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): NA

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): NA

311/312 HAZARD CATEGORIES: NA

313 REPORTABLE INGREDIENTS: NA

STATE REGULATIONS: NA

INTERNATIONAL REGULATIONS: NA

OSHA Regulatory Status: Some ingredients of this product are hazardous according to OSHA 29CFR 1910.1200. These specific ingredients are in lower amounts than the OSHA Permissible Exposure Limits and ACGIH Time Weighted Average.

IMPORTANT: The information contained herein relates only to the specific material identified. TEA believes that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, express or implied, is made as to the accuracy, reliability, or completeness of the information. TEA urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

SECTION 16: OTHER INFORMATION

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