

Kosta Oil Field Technologies (KostaTech)

Safety Data Sheet

Note: Read and understand Safety Data Sheet before handling or disposing of product

1 Chemical Product and Company Identification

Product Trade Name InSol™ 541
CAS Number Confidential.
Synonyms None.
Generic Chemical Name Substituted carboxylic acid
Product Type Multipurpose.

Manufacturer's Name and Address:
 Kosta Oil Field Technologies, Inc.
 12976 Sugar Ridge Boulevard
 Stafford, Texas 77477, U.S.A.

Telephone Numbers:

TRANSPORTATION EMERGENCY in United States: INFOTRAC 800-535-5053

TRANSPORTATION EMERGENCY International: INFOTRAC 352-323-3500 (May call collect)

HEALTH EMERGENCY: 800-535-5053

GENERAL MSDS ASSISTANCE: 281/568-8415

TECHNICAL INFORMATION: 281/568-8415

2 Hazards Identification

Appearance Amber colored liquid.
Odor Aromatic hydrocarbon

Principal Hazards Danger.

- | Flammable liquid. may create a flash fire hazard.
- | Harmful if inhaled.
- | Causes respiratory tract irritation.
- | May be harmful if absorbed through skin.
- | May cause eye irritation.
- | May cause chronic health effects based on data with laboratory animals.

Target Organs: Blood Central nervous system Heart Kidney Liver

See Section 11 for complete health hazard information.

3 Composition/Information on Ingredients

Hazardous Ingredients

Comp	CAS No.	Percentage (by wt.)	Carcinogen
Substituted carboxylic acid	Confidential.	From 60 to 69.9 percent	N/E
Xylene	1330-20-7	29.6%	N/E
Ethyl benzene	100-41-4	7.4%	IARC Suspect Carcinogen
Toluene	108-88-3	From 0.1 to 0.9 percent	N/E

(N/E) - None established

4 First Aid Measures

Eyes Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

Skin Immediately remove all contaminated clothing. Rinse skin with water / shower. Get medical attention if irritation develops. Launder contaminated clothing before reuse.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. Call a poison center or doctor.

Oral DO NOT INDUCE VOMITING. Get immediate medical attention.

Additional Information If exposed or concerned: Get medical attention.

5 Fire Fighting Measures

Flash Point > 25 °C, 77 °F PMCC (Minimum)

Extinguishing Media CO2, dry chemical, or foam. Water can be used to cool and protect exposed material.

Firefighting Procedures Recommend wearing self-contained breathing apparatus. Water may cause splattering.

Unusual Fire & Explosion Hazards Toxic fumes, gases or vapors may evolve on burning. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Container may rupture on heating. See section 10 for additional information.

6 Accidental Release Measures

Spill Procedures May form explosive mixtures with air. Immediately evacuate all personnel from danger area. Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Take precautions to avoid release to the environment. Eliminate all sources of heat, sparks pilot lights, static electricity and open flames. Ventilate spill area. Prevent entry into sewers and waterways, dispose of in accordance with all federal, state and local environmental regulation. Pick up free liquid for recycle and/or disposal if can be accomplished safely with explosion proof equipment. Residual liquid can be absorbed on inert material. Check under Transportation and Labeling (DOT/CERCLA) and Other Regulatory Information Section (SARA) for hazardous substances to determine regulatory reporting requirements for spills.

7 Handling and Storage

Pumping Temperature Not determined.

Maximum Handling Temperature Ambient

Handling Procedures Keep away from ignition sources such as heat, sparks and open flame. No smoking. Keep containers closed when not in use. Do not discharge into drains or the environment, dispose to an authorized waste collection point. Use appropriate containment to avoid environmental contamination. Avoid breathing dust, fume, gas, mist, vapors or spray. Ground / bond container and receiving equipment. Use explosion-proof equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Launder contaminated clothing before reuse. Empty containers retain material residue. Do not cut, weld, braze, solder, drill, grind or expose containers to heat, flame, spark or other sources of ignition. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

Maximum Storage Temperature Ambient

Storage Procedures Do not store near potential sources of ignition. Isolated outside storage is preferred. Inside storage area should be in a flammable liquids cabinet or storage area. Take precautions to avoid release to the environment. Store in a well-ventilated place. Keep cool. Keep container tightly closed. See section 10 for incompatible materials.

Maximum Loading Temperature Ambient

8 Exposure Controls/Personal Protection

Exposure Limits

Comp	Exposure Guidelines						
	OSHA		ACGIH		Other		
	TWA	STEL	TWA	STEL	TWA	STEL	
Xylene	100 ppm	N/E	100 ppm	150 ppm	N/E	N/E	N/E
Ethyl benzene	100 ppm	N/E	20 ppm	125 ppm	N/E	N/E	N/E
Toluene	200 ppm	300 ppm (c)	20 ppm	N/E	N/E	N/E	N/E

- (s) - Skin exposure
- (p) - Proposed limit
- (c) - Ceiling exposure
- (l) - Recommended exposure limit
- (u) - Supplier recommended exposure limit
- (N/E) - None established

Other Exposure Limits None known.

Engineering Controls Use local exhaust ventilation to control mists or vapors. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits. Use explosion proof equipment.

Gloves Procedures Viton. Teflon. Polyvinyl alcohol. Note: polyvinyl alcohol gloves are water soluble and should not be used when there is potential for water contact.

Eye Protection Safety glasses. If potential for splash or mist exists, wear chemical goggles or face shield.

Respiratory Protection	Use NIOSH/MSHA approved full face respirator with a combination organic vapor and high efficiency filter cartridge if the recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.
Clothing Recommendation	Gloves, coveralls, apron, boots as necessary to minimize contact. Wear a chemically protective apron when contact with material may occur. Launder contaminated clothing before reuse.

9	Physical and Chemical Properties
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Flash Point	> 25 °C, 77 °F PMCC (Minimum)
Upper Flammable Limit	Not determined.
Lower Flammable Limit	Not determined.
Autoignition Point	Not determined.
Explosion Data	Material does not have explosive properties in the liquid state, but vapors may form explosive mixtures with air.
Vapor Pressure	0.02749 psi (Calc) (0 °C) 0.03627 psi (Calc) (4 °C) 0.0896 psi (Calc) (20 °C) 0.22545 psi (Calc) (38 °C) 1.22359 psi (Calc) (77 °C)
pH	Not determined.
Specific Gravity	0.96 (15.6 °C)
Bulk Density	Not determined.
Water Solubility	Insoluble.
Percent Solid	Not determined.
Percent Volatile	37%
Volatile Organic Compound	Not determined.
Vapor Density	Not determined.
Evaporation Rate	Not determined.
Odor	Aromatic hydrocarbon
Appearance	Amber colored liquid.
Viscosity	40 Centistokes (40 °C) 5 Centistokes (100 °C)
Odor Threshold	Not determined.
Boiling Point	137 °C, 278.6 °F(Initial)
Pour Point Temperature	Not determined.
Melting / Freezing Point	Not determined.

The above data are typical values and do not constitute a specification. Vapor pressure data are calculated unless otherwise noted.

10	Stability and Reactivity
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Stability	Material is normally stable at moderately elevated temperatures and pressures.
Decomposition Temperature	Not determined.
Incompatibility	Oxidizing agents.
Polymerization	Will not occur.
Thermal Decomposition	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.
Conditions to Avoid	Not determined.

11	Toxicological Information
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-- ACUTE EXPOSURE --

Eye Irritation	Weak to moderate eye irritant. Does not meet Canadian D2B or EU R36 criteria. Based on actual data.
Skin Irritation	Not expected to be a primary skin irritant. Based on actual data. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.
Respiratory Irritation	Nose, throat and lung irritant. Based on data from similar materials.
Dermal Toxicity	The LD50 in rabbits is > 2000 mg/Kg. Based on data from similar materials. Components of this material may be absorbed through the skin.
Inhalation Toxicity	The LC50 (1 hr.) in rats for vapors of this material is > 200 mg/l. Based on data from components or similar materials. High concentrations may cause headaches, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, other central nervous system effects leading to visual impairment, respiratory failure, unconsciousness and death. The LC50 in rat (4 hr) for xylene is 6,700 ppm.
Oral Toxicity	The LD50 in rats is > 5000 mg/Kg. Based on actual data. Ingestion of this material may cause headache, dizziness, uncoordination, and general weakness. Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.
Dermal Sensitization	No data available to indicate product or components may be a skin sensitizer.
Inhalation Sensitization	No data available to indicate product or components may be respiratory sensitizers.

-- CHRONIC EXPOSURE --

Chronic Toxicity	Xylene has been found to cause cardiac, liver and kidney effects, anemia and eye damage in laboratory animals. Prolonged and repeated inhalation of hydrocarbon solvents such as xylene can cause chronic neurological disturbances. Chronic exposure to xylene has been shown to cause hearing loss in experimental animals.
Carcinogenicity	A National Toxicology Program (NTP) study found an increased incidence of renal tubule neoplasms in male and female rats exposed to ethylbenzene by inhalation for two years. In male and female mice similarly exposed, increased incidences of alveolar/bronchiolar neoplasms, and hepatocellular neoplasms, respectively, were observed. Ethylbenzene has been classified by IARC as a possible human carcinogen (Group 2B) on the basis of sufficient evidence of carcinogenicity in experimental animals but inadequate evidence in exposed humans.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive Toxicity	No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.
Teratogenicity	Xylene is fetotoxic in rats and rabbits in the absence of maternal toxicity. Prolonged and repeated exposure of pregnant animals to toluene by inhalation has been reported to cause adverse fetal developmental effects.

-- ADDITIONAL INFORMATION --

Other No other health hazards known.

12	Ecological Information
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-- ENVIRONMENTAL TOXICITY --

Freshwater Fish Toxicity	The acute LC50 is 100 - 1000 mg/L based on similar materials.
Freshwater Invertebrates Toxicity	The acute EC50 is 10 - 100 mg/L based on similar materials.
Algal Inhibition	The acute EC50 is 1 - 10 mg/L based on component data.
Saltwater Fish Toxicity	Not determined.
Saltwater Invertebrates Toxicity	Not determined.
Bacteria Toxicity	The acute EC50 is > 1000 ppm based on similar materials.
Miscellaneous	Toxicity Not determined.

-- ENVIRONMENTAL FATE --

Biodegradation	This product shows limited biodegradation based on OECD 301-type test data for similar products.
Bioaccumulation	This material potentially bioconcentrates, based on QSAR calculated octanol/water coefficient data.
Soil Mobility	Not determined.

13	Disposal Considerations
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Waste Disposal This material, if discarded, is a hazardous waste under RCRA Regulation 40 CFR 261. Material, if discarded, is expected to be hazardous waste under RCRA due to ignitability (D001). 0.004% Benzene, CAS no. 71-43-2, D018. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

14	Transport Information
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ICAO/IATA I	UN1307 Xylene solution , 3 , III
ICAO/IATA II	UN1307 Xylene solution , 3 , III
IMDG	UN1307 Xylene solution , 3 , III
IMDG EMS Fire	F-E
IMDG EMS Spill	S-D
IMDG MFAG	310
MARPOL Annex II	Not determined.
USCG Compatibility	Not determined.
U.S. DOT Bulk	UN1307 Xylene solution 3 , III, RQ (Ethylbenzene, Xylene)
DOT NAERG	130
U.S. DOT (Intermediate)	UN1307 Xylene solution 3 , III, RQ (Ethylbenzene, Xylene)
U.S. DOT Intermediate NAERG	130
U.S. DOT Non-Bulk	UN1307 Xylene solution 3 , III, RQ (Xylene)
U.S. DOT Non-Bulk NAERG	130
Canada	UN1307 Xylene solution , 3 , III
Mexico	UN1307 Xylene solution , 3 , III
Bulk Quantity	85000 KG, 187391 lbs.
Intermediate Quantity	11000 KG, 24251 lbs.
Non-Bulk Quantity	400 KG, 882 lbs.

Review classification requirements before shipping materials at elevated temperatures.

15	Regulatory Information
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-- Global Chemical Inventories --

USA All components of this material are on the US TSCA Inventory or are exempt.
Other TSCA Reg. Section 8d (Benzene, ethyl-).

EU	All components are in compliance with the EC Seventh amendment Directive 92 /32/EEC.
Japan	All components are in compliance with the Chemical Substances Control Law of Japan.
Australia	All components are in compliance with chemical notification requirements in Australia.
New Zealand	All components are in compliance with chemical notification requirements in New Zealand.
Canada	All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.
Switzerland	All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.
Korea	All components are in compliance in Korea.
Philippines	All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).
China	All components of this product are listed on the Inventory of Existing Chemical Substances in China.
Taiwan	All components of this product are listed on the Taiwan inventory.

-- Other U.S. Federal Regulations --

SARA Ext. Haz. Subst. This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substances list.

SARA Section 313 29.6% Xylene (mixed isomers), CAS no. 1330-20-7; 7.4% Ethylbenzene, CAS no. 100-41-4

SARA 311 Classifications

Acute Hazard	Yes
Chronic Hazard	Yes
Fire Hazard	Yes
Reactivity Hazard	No

CERCLA Hazardous Substances**Transit Reportable Quantities**

Component	Reportable Quantity RQ	Units	Reportable Quantity RQ	Units
Xylene	338	lbs.	153	KG
Ethylbenzene	13526	lbs.	6135	KG

-- State Regulations --

Cal. Prop. 65 This product contains the following chemical(s) known to the state of California to cause cancer and/or birth defects: 0.004% Benzene, CAS no. 71-43-2 0.296% Toluene, CAS no. 108-88-3 7.4% Ethyl benzene, CAS no. 100-41-4

-- Product Registrations --

U.S. Fuel Registration	This fuel additive is registered in the United States.
Finnish Registration Number	Not Registered
Swedish Registration Number	425203-7
Norwegian Registration Number	23602
Danish Registration Number	Not Registered
Swiss Registration Number	Not Registered
Italian Registration Number	Not Registered

-- Other / International --

Miscellaneous Regulatory Information Not determined.

16	Other Information
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Emergency Contact: INFOTRAC 800-535-5053

US NFPA Codes	Health	Fire	Reactivity	Special
	2	3	0	N/E
	(N/E) - None established			

HMIS Codes	Health	Fire	Reactivity
	2*	3	0

Precautionary Labels Danger.

- |Flammable liquid. may create a flash fire hazard.
- |Harmful if inhaled.
- |Causes respiratory tract irritation.
- |May be harmful if absorbed through skin.
- |May cause eye irritation.
- |
- |May cause chronic health effects based on data with laboratory animals.

Revision Indicators

Section: 3 Hazardous ingredients. Changed: 26 January 2012
Section: 8 Hazardous ingredients. Changed: 26 January 2012
Section: 15 Taiwan Changed: 30 September 2011

KostaTech recommends that all exposures to this product be minimized by strictly adhering to recommended occupational controls and procedures to avoid any potential adverse health effects.

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