



MATERIAL SAFETY DATA SHEET
Ivey-sol[®] Surfactant Technology

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ivey-sol
Chemical Name: Not Applicable (mixture)
Chemical Family: Non-ionic Surfactants
Formula: Not Applicable (mixture)
Synonym(s): Ivey-sol 103, Ivey-sol 106, and Ivey-sol 108

CONTACT BY COUNTRY:

Canada:

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Australia:

Quantum Chemicals Pty Ltd. 70 Quantum Close, Quantum Industrial Park,
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Prepared (Last Updated): May 24, 2011

Ivey International Inc. (IVEY) urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the proper use and handling of the subject product. The reader should consider consulting reference materials, and/or IVEY technical support personnel, and/or other recognized experts, as necessary or appropriate to the use and understanding of the data contained in this MSDS. To promote the safe handling, storage and use of this product, each customer or recipient should (1) notify his employees, agents, contractors, and others whom he knows or believes will use this product, of the information in this MSDS and any other information regarding product use, storage and handling, (2) furnish this same information to each of his customers for the product, and (3) request his customers to notify their employees, customers, and other users of the product, and of this information.

SECTION 2: COMPOSITION INFORMATION

Components: Ivey-sol (biodegradable) non-ionic surfactants (Blend)
Generic Description: Water based biodegradable wetting agents and surfactants.

Ivey-sol[®]/SPT[®] Technology - Stock Mixtures. Patented and or proprietary blends. Information in this MSDS is applicable for all component products listed.

SECTION 3: HAZARDS IDENTIFICATION

Effects of a Single Exposure.

Swallowing: Non to slightly toxic. May cause abdominal discomfort and nausea for some individuals.
Skin Absorption: No evidence of harmful effects.
Inhalation: No evidence of harmful effects.

Skin Contact: Brief contact should not result in any significant effects. Prolong exposure may cause mild irritation with local itching and redness for individuals with sensitive skin.

Eye Contact: May cause mild to moderate irritation.

Effects of Repeated Exposure: Repeated skin contact may cause mild dermatitis (dryness of skin).

Medical Conditions: Existing dermatitis may be aggravated through repeated skin contact.

Other Effects: None currently known.

Section 4: FIRST AID MEASURES

Swallowing: If patient is fully conscious, give two glasses of water

Skin Absorption: Wash exposed skin with soap and water. Obtain medical attention if irritation or dermatitis persists. Wash exposed clothing before reuse.

Inhalation: Not applicable.

Eye Contact: Immediately flush eyes with water and continue to flush as required. Remove any contact lenses, if worn. Obtain medical attention if deemed necessary.

Note to Physician: There is no required antidote. Treatment should be directed at the control of symptoms and the clinical condition of the patient.

Section 5: FIRE FIGHTER MEASURES

Flammability: Not Flammable

Auto Ignition Temperature: Not Available

Upper Flammable Limit: Not Established

Lower Flammable Limit: Not Established

Explosive Date: Explosive Power - Not Available
Rate of Burning - Not Available

Hazardous Combustion Products: Not applicable

Special Protective Equipment: Not Applicable

Extinguishing Media: Not Applicable

Extinguishing Media to be avoided: Not Applicable

Special Fire Fighting Procedures: Not Applicable

Section 6: ACCIDENTAL RELEASE MEASURES

Step to be taken if Material is Released or Spilled: Eliminate and/or contain source with inert material (sand, earth, absorbent pads, etc.). Wear basic eye and skin protection. Floor may be slightly slippery; so use care to avoid falling. Avoid discharge to natural waters, and/or dilute with water. Transfer liquids to suitable containers for recovery, re-use or disposal. Contact III for technical assistance if required.

Section 7: HANDLING AND STORAGE

Handling Procedures: Avoid contact with eyes, skin, and clothing. Do not swallow. Keep containers closed or sealed when not in use. Wash thoroughly after handling.

Storage: Keep closed or sealed when not in use. Do not allow to freeze.

Ventilation: General mechanical room ventilation should be satisfactory.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Gloves / Type: Latex, or similar would be sufficient.

Respiratory / Type: None expected to be required. However, if an engineered/industrial application where vapors and/or misting may occur, wear MSHA/NIOSH approved half mask air purifying respirator.

Eye / Type: Mono Goggles or similar.

Footwear / Type:	No special requirements.
Clothing / Type:	Wear an apron and /or coveralls.
Other / Type:	Eye bath.
Engineering Controls:	General mechanical room ventilation should be satisfactory.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Water Based Liquid
Appearance:	Clear to slightly Cloudy White Color
Odor:	Mild
Molecular Weight:	Mixture (Not Applicable)
Boiling Point:	Not Applicable
Freezing Point:	Approx. 0°C (32°F)
Pour Point:	Not Applicable
Melting Point:	Not Applicable
Specific Gravity:	0.99-1.04 (Water = 1.0)
Vapor Pressure:	<0.01 mm Hg
Vapor Density:	> 1 (Air = 1.00)
pH:	Not Available (Typically 6.5-7.5 Range)
Solubility in Water:	100%
Evaporation Rate:	<0.01
Coefficient of Oil/Water Distribution	Not Determined

Section 10: STABILITY AND REACTIVITY

Stability:	Stable
Conditions to Avoid:	Prolonged excessive heat may cause product decomposition. Freezing should also be avoided as it may cause product decomposition. In some cases, it may cause irreversible changes.
Incompatible Materials:	Normally un-reactive; however avoid strong bases at high temperatures, strong acids, strong oxidizing agents, and materials with reactive hydroxyl compounds. These compounds would damage the mixture and reduce its effectiveness during application.
Hazardous Decomposition Products:	Not applicable.
Hazardous Polymerization:	Will not occur.

Section 11: TOXICOLOGICAL INFORMATION

Exposure Limit of Material:	Not Established
LD/50:	Not Available
LC/50:	Not Available
EL:	Not Established
Carcinogenicity of Material:	None Known
Reproductive Effects:	Not Available
Irritancy of Material:	See Section 3
Sensitizing Capability:	Not Available
Synergistic Materials:	Not Available

LD: Lethal Dose LC: Lethal Concentration EL: Exposure Limit

Section 12: ECOLOGICAL CONSIDERATIONS

Environmental Toxicity:	Low Potential to affect aquatic organisms*
Biodegradability:	>90% in 28 days**
LC/50:	48 Hour: 0.11 %, Species: Daphnia magna
LC/50:	96 Hour: 0.07695%, Species: Rainbow Trout

- * When used in accordance with Ivey International Inc. In-situ and Ex-situ Remediation Applicable Guidelines.
- ** Based on actual testing or on data for similar material(s). Degradation Biodegradation reached in Modified OECD Screening Test (OECD Test No.301 E) after 28 days: 90 %. Biodegradation reached in CO2 Evolution Test (Modified Sturm Test, OECD Test No. 301 B) after 28 days: 70 %.

All available ecological data have been taken into account for the development of the hazard and precautionary information contained in this Material Safety Data Sheet.

Section 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: For aqueous Ivey-sol mixture solutions; aerobic biological wastewater treatment systems are effective in treating said mixtures. Ivey-sol does not have any known negative affect on coagulant or flocculent water treatment processes.

Section 14: TRANSPORTATION INFORMATION

UN Number: Not Applicable
 TDG Classification: Not Required
 Shipping Name: Ivey-sol
 Packing Group: Not Applicable
 Special Shipping Instructions: Do not allow to freeze

Section 15: REGULATORY INFORMATION

WHMIS Classification: Not Controlled as per WHMIS Regulation.
 CPR Compliance: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
 CEPA Compliance: All ingredients of this product are listed on the DSL.

Section 16: OTHER INFORMATION

Available Literature and Brochures: Additional information on this product may be obtained by calling our customer service representatives at -800-246-2744 or -250-923-6326.

Recommended Uses and restrictions: For the application of air, soil, groundwater, shoreline, and off-shore spill petroleum reclamations purposes. Secondary recoveries of petroleum products form crude-oil, oil-shale, and oil-sands. Additional information on uses can be made available by contacting out technical sales director in your area by visiting www.iveyinternational.com, or by calling toll free 1-800-246-2744 or +1-250-923-6326.

Legend: TS - Trade Secret
 D2B - Toxic Material causing Other Effects.
 mm - Millimeters
 LD - Lethal Dose
 LC - Lethal Concentration
 EL - Exposure Limit
 Hg - Mercury (760 mm Hg = 1 Atmosphere, Sea Level)

Ref: Ivey-sol/MSDS/ (Revised May 24, 2011)