# **Safety Data Sheet**

Skye Petroleum Inc.



### Section 1. Product and Company Identification

Product Name : Skye Chem WD-RTU Supplier : Skye Petroleum Inc.

13515 Southwest Freeway, Suite 207

Sugar Land, TX 77478

**United States** 

For product information: 1-281-265-1199

Material Uses : Oil Production Treatment

Validation Date : January 6, 2016

Revision/Version Number : 3

Supersedes : Version 2 (March 6, 2013)
Responsible Name : Gary Merritt – 281-265-1199

In Case of Emergency : Skye Petroleum 24 hours 281-265-1199

### 2. Hazards Identification

Classification of Substance or Mixture Flammable Liquid: Category 2
Acute Toxicity (Oral): Category 3
Acute Toxicity (Dermal): Category 5

Acute Toxicity (Inhalation): Category 4 Skin Corrosion/irritation: Category 2 Eye Damage/Irritation: Category 1 Germ Cell Mutagenicity: Category 1B

Carcinogenicity: Category 2 Reproductive Toxicity: Category 2

Specific Target Organ Toxicity – Single Exposure: Category 3 (respiratory) Specific Target Organ Toxicity – Single Exposure: Category 3 (narcotic) Specific Target Organ Toxicity – Repeated Exposure: Category 2

Aspiration Hazard: Category 1
Aquatic Toxicity (Acute): Category 2

### **Pictograms**











Signal Words : Danger

Physical Hazard Statements : Highly Flammable Liquid and Vapour

May be corrosive to metals

Skye Chem WD-RTU Page 1 of 12

#### **Health Hazard Statements**

Toxic if swallowed

May be harmful in contact with skin

Causes skin irritation

Causes serious eye damage

Harmful if inhaled

May cause genetic defects
Suspected of causing cancer

Suspected of damaging fertility or the unborn child

May cause respiratory Irritation
May cause drowsiness or dizziness

May cause damage to organs through prolonged or repeated exposure

May be fatal if swallowed and enters airways

# **Environmental Hazard Statements**

Toxic to Aquatic Life

#### **Precautionary Statements**

Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Keep away from heat/spark/open flame/hot surfaces. No smoking.

Keep container tightly closed

Ground/Bond container and receiving equipment

Use explosion-proof electrical/ventiliating/lighting and equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

Wash hands, forearms and face thouroughly after handling.

Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.

Avoid release to the environment

Response

: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of water and soap. Specific treatment (see Section 4 - First Aid Measures on this label). If skin irritation occurs: Get medical advice attention. Take off contaminated clothing and wash it before reuse. Call a POISON CONTROL CENTER or physician if you feel unwell.

IF SWALLOWED: Immediately call a POISON CONTROL CENTER or physician. Specific treatment (see Section 4 - First Aid Measures on this label). Rinse mouth. Do NOT induce vomiting.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CONTROL CENTER or physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately call a POISON CONTROL CENTER or physician.

Skye Chem WD-RTU Page 2 of 12

IF exposed or concerned: Get medical advice/attention.

Get Medical advice/attention if you feel unwell.

In case of fire: Use Water Spray or Dry Chemical to extinguish.

Storage : Store locked up.

Store in a well-ventilated place. Keep container tightly closed. Keep Cool.

Disposal : Dispose of contents/containers in accordance with federal, provincial/state or local

regulations.

**WHMIS Hazards** 

Classification : Class B2 - Flammable Liquid

Class D1.B - Immediate and Seriously Toxic Effects

Class D2.B - Other Toxic Effects Class E - Corrosive Material

**Label Elements** 









Other Hazards : None

**NFPA Hazards** 



# 3. Composition/Information on ingredients

<b>Chemical Identity</b>	<u>Synonyms</u>	CAS number	EC number (REACH)	<u>Wt. %</u>
Light aliphatic solvent naphtha	Solvent Naphtha (petroleum); light gasoline; rubber solvent	64742-89-8	232-453-7	70-100%
Xylenes	Xylene, mixture of isomers	1330-20-7	215-535-7	1-5%
Methyl Isobutyl Ketone	4-methylpentan-2- one	108-10-1	203-550-1	0.5-2%
Sulfosuccinate	Docusate Sodium	577-11-7	209-406-4	0.5-2%

Skye Chem WD-RTU Page 3 of 12

Phosphate Ester	-	68921-24-4	-	0.5-2%
Ethylbenzene	Ethylbenzol;	100-41-4	202-849-4	0.1-1%
	Phenylethane			

#### 4. First-Aid Measures

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: Immediately flush with large quantities of water for at least 15 minutes. Occasionally lifting the upper and lower eyelids. Check for and remove contact lenses. Seek Medical attention at once.

**Symptoms** 

: Eye irritation signs and symptoms may include a burning sensation, redness, swelling and/or blurred vision.

#### Skin contact

: Immediately flush with water for at least 15 minutes. IF clothing, shoes and/or jewellery come in contact with the product, they should be removed and laundered before reuse.

**Symptoms** 

: Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters.

#### Ingestion

: Rinse mouth thoroughly with water. Immediately drink large quantities of water. Do Not induce vomiting. Seek Medical attention at once. Do not give anything by mouth if the victim is unconscious or if having convulsions. IF vomiting occurs naturally have the victim lean forward to reduce the risk of aspiration.

**Symptoms** 

: Ingestion may cause malaise and/or vomiting. Swallowing or vomiting of the material may cause aspiration of the material into the lungs. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty breathing, chest congestion, shortness of breath, and/or fever.

#### Inhalation

: Remove to fresh air. If a person experiences nausea, headache or Dizziness, person should stop working immediately and move to fresh air until symptoms disappear. If breathing is difficult administer oxygen, keep the person warm and at rest. Seek Medical Attention. In the event that an individual inhales enough vapour to lose consciousness, that person should be removed to fresh air immediately and a physician called at once. Ensure adequate ventilation and provide respiratory protection before the person returns to work.

#### **Symptoms**

Respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death.

If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty breathing, chest congestion, shortness of breath, and/or fever.

#### Notes to Physician

: Monitor and treat symptoms. No special treatment required.

Skye Chem WD-RTU Page 4 of 12

# 5. Fire-Fighting Measures

Flammability Highly Flammable Liquid and Vapour

Foam or Water Spray. CO<sub>2</sub> or Dry Chemical Suitable Extinguishing Media None

**Un-suitable Extinguishing** 

Media

Sensitivity to Static Discharge Not Established Sensitivity to Impact Not Established

Specific Hazards during fire

fighting

Flash Point = 10°C (50°F) Fumes, smoke and Carbon Monoxide

Special Protective Equipment

for fire-fighters

**Hazardous Combustion** 

**Further Information** 

**Products** 

As in any fire, wear self-contained breathing apparatus pressure-demand,

MSHA/NIOSH (approved or equivalent) and full protective gear.

Oxides of Carbon, Sulfur and Nitrogen. Carbon Monoxide. Carbon Dioxide.

Isolate the danger area. Use water to cool fire exposed containers.

#### 6. Accidental Release Measures

**Personal Precautions** NO action should be taken involving personal risk or without suitable training.

> Evacuate the surrounding area. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate protective

equipment

**Environmental Precautions** Avoid Dispersal of the material and runoff and contact with soil, waterways, drains

and sewers.

Methods for Clean up

**Small Spill** Stop Leak if without risk. Move containers from the spill area. Absorb with a suitable

inert material. Dispose via a licenced waste disposal contractor.

Large Spill Stop Leak if without risk. Move containers from the spill area. Dike spill area and do

not allow product to reach sewage systems or surface or ground water. Notify reportable spill to authorities (see section 12 for environmental risks and 13 for disposal information). Contain and collect spillage with a non-combustible absorbent material and place in container for disposal according to local regulations (see section 13). Dispose via licenced waste disposal contractors. Contaminated absorbent

material may pose the same hazards as the spilled product.

# 7. Handling and Storage

Precautions for safe Handling Put on appropriate protective equipment. (See section 8). Eating Drinking and

smoking should be prohibited in areas where this material is handled stored or processed. Workers should wash hands and face before eating drinking and smoking.

Do not get on eyes skin or clothing. Do not ingest.

Conditions for safe Storage, including incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in a Dry cool place away from incompatible materials. Keep container tightly

closed and sealed until use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

Use appropriate containment to avoid environmental contamination.

Skye Chem WD-RTU Page 5 of 12

# 8. Exposure controls and personal protection

### **Exposure Guidelines**

If this product contains ingredients with exposure limits, workplace atmosphere or biological monitoring may be required to determine the effectiveness of ventilation or other controls and or necessitate the use of respiratory protective equipment

Component	CAS#	List	Туре	Value		
Light aliphatic solvent naphtha	64742-89-8	OSHA	TWA Z-1	500 ppm 2,000 mg/m <sup>3</sup>		
		OSHA	TWA PO	400 ppm 1,000 mg/m <sup>3</sup>		
Xylenes	1330-20-7	ACGIH	TWA TLV	100 ppm		
		ACGIH	STEL TLV	150 ppm		
		ACGIH	BEI	1,500 mg/g (urine)		
		OSHA	TWA Z-1	100 ppm 435 mg/m <sup>3</sup>		
Methyl Isobutyl Ketone	108-10-1	ACGIH	TWA TLV	50 ppm 205 mg/m <sup>3</sup>		
		ACGIH	STEL TLV	75 ppm		
		ACGIH	BEI	1 mg/L (urine)		
		OSHA	TWA Z-1	50 ppm 205 mg/m <sup>3</sup>		
		OSHA	STEL Z-1	75 ppm 300 mg/m <sup>3</sup>		
		NIOSH	TWA	50 ppm 205 mg/m <sup>3</sup>		
		NIOSH	STEL	75 ppm 300 mg/m <sup>3</sup>		
Ethylbenzene	100-41-4	ACGIH	TWA	20 ppm		
		ACGIH	STEL	125 ppm		
		ACGIH	BEI	0.7 mg/g (urine)		
		NIOSH	TWA REL	100 ppm 435 mg/m <sup>3</sup>		
		NIOSH	ST REL	125 ppm 545 mg/m <sup>3</sup>		
		OSHA	TWA Z-1	100 ppm 435 mg/m <sup>3</sup>		
		OSHA	TWA PO	100 ppm 435 mg/m <sup>3</sup>		
		OSHA	STEL PO	125 ppm 545 mg/m <sup>3</sup>		
Sulfosuccinate	577-11-7		Not Established			
Phosphate Ester	68921-24-4	ACGIH	TWA TLV	1 mg/m <sup>3</sup>		

Skye Chem WD-RTU Page 6 of 12

#### **Recommended monitoring procedures**

Engineering Measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation

or other engineering controls to keep airborne contaminates below any

recommended statutory limits.

**Personal Protection** 

Respiratory : If risk assessment indicates it is necessary, uses a properly fitted, air purifying

respirator complying with and approved standard. Respirator selection must be based on the known or anticipated exposure levels, the hazards of the product and the safe

working limits of the selected respirator.

Hands : Use chemically resistant gloves made neoprene, nitrile or natural rubber.

Eyes : Wear chemical safety goggles. When transferring the material wear a face shield in

addition to the safety goggles.

Skin : Impervious clothing, rubber aprons, PVC clothing and plastic hard hats should be used

when necessary to prevent skin contact.

Footwear : Chemically resistant boots.

Work/Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before

eating drinking or smoking and at the end of the work period. Ensure that eye wash

stations and safety showers are close to the workstation location. Take off

contaminated clothes and wash before reuse.

NFPA Pictograms











# 9. Physical and Chemical Properties

Physical State : Liquid

Color : Clear

Odour : Aromatic

Odour Threshold : Not Established

pH : Not Applicable

Boiling Point/Range : 128-145°C (263-293°F)

Initial boiling : 116°C (242°F)

Melting/Freezing Point : Not Established

Flash Point :  $10^{\circ}$ C ( $50^{\circ}$ F)

Auto-ignition Temperature : 241-320°C (466-608°F) based on data from Light aliphatic solvent naphtha

Flammable limits : 0.9-7.5

Upper Explosive Limit : 7.5%

Lower Explosive Limit : 0.9%

Vapour Pressure : 11.0 kPa (1.60 psi) @ 20°C (68°F)

Evaporation Rate : Not Established

Skye Chem WD-RTU Page 7 of 12

Vapour Density (air = 1) : 3.9

VOC : Light Aliphatic Solvent Naphtha, Xylene, Ethylbenzene, Methyl Isobutyl Ketone

Relative Density (water = 1) : 0.74

Density : 0.74 mg/L @ 15.5°C (60°F)

Viscosity : Not Established

Solubility (in water) : Partially soluble

Partition Coefficient : Not Established

Pour Point : Not Established

Decomposition Temperature : Not Established

### 10. Stability and Reactivity

Reactivity : Stable under normal conditions

Chemical Stability : Stable

Possibility of hazardous

reactions

Strong Oxidizing agents. Concentrated acids. Strong acids and bases. Molten Sulfur.

Hazardous polymerization : Does not occur

Conditions to avoid : Temperatures above ambient

Incompatible Materials : Strong oxidizing agents, concentrated nitric and sulfuric acids, halogens and molten

sulfur.

**Hazardous Products of** 

Decomposition

: Oxides of Carbon, Sulfur and Nitrogen. Carbon Monoxide. Carbon Dioxide.

# 11. Toxicological Information

#### **Acute Toxicity**

Product or ingredient name	Result	Species	Dose	Exposure
Light aliphatic solvent naphtha	LD <sub>50</sub> Oral	Rat	>5,000 mg/kg	-
	LD <sub>50</sub> Dermal	Rabbit	>5,000 mg/kg	-
	LC <sub>50</sub> Inhalation	Rat	11 mg/L	4 hour (vapour)
Xylenes	LD <sub>50</sub> Oral	Rat	4,300 mg/kg	-
	LD <sub>50</sub> Dermal	Rabbit	>2,000 mg/kg	-
Methyl Isobutyl Ketone	LD <sub>50</sub> Oral	Rat	2,080 mg/kg	-
	LD <sub>50</sub> Dermal	Rabbit	>16,000 mg/kg	-
	LC <sub>50</sub> Inhalation	Rat	8.2-16.4 mg/m <sup>3</sup>	4 hour (vapour)
Ethylbenzene	LD <sub>50</sub> Oral	Rat	3,500 mg/kg	-
	LD <sub>50</sub> Dermal	Rabbit	15,433 mg/kg	-

Skye Chem WD-RTU Page 8 of 12

Sulfosuccinate	LD <sub>50</sub> Oral	Rat	>3,000 mg/kg	-
	LD <sub>50</sub> Dermal	Rabbit	>10,000 mg/kg	-
	LC <sub>50</sub> Inhalation	Rat	>2,000 mg/m <sup>3</sup>	-
Phosphate Ester	LD <sub>50</sub> Oral	Rat	3.5 mg/kg	-
	LD <sub>50</sub> Dermal	Rabbit	>2,500 mg/kg	-

Carcinogenicity	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Light aliphatic solvent naphtha	-	-	-	-	-	-
Xylene	-	3	-	-	-	-
Methyl Isobutyl Ketone	-	2B	-	-	-	-
Ethylbenzene	-	2B	-	-	-	-
Sulfosuccinate	-	-	-	-	-	-
Phosphate Ester	-	-	-	-	-	-

Irritation : Causes mild skin irritation and serious eye irritation

Mutagenicity : Light aliphatic solvent naphtha – positive test results from *in vivo* heritable germ

cell mutagenicity tests in mammals.

Toxicity for reproduction : Light aliphatic solvent naphtha – Some evidence of adverse effects on sexual

function and fertility, and/or development, based on animal experiments.

**Specific Target Organ Toxicity** 

Single Exposure : May cause dizziness or drowsiness. May cause respiratory irritation.

Repeated Exposure : May cause damage to organs through prolonged or repeated exposure: Kidneys,

Aspiration Hazard : May be fatal if swallowed and enters airways.

## 12. Ecological Information

Aquatic Ecotoxicity : Toxic to Aquatic Life

Product or ingredient name	Result	Species	Dose	Exposure	
Light aliphatic solvent naphtha	LL <sub>50</sub>	Fish	8.2 mg/L	96 hour	
	EL <sub>50</sub>	Daphnia Magna	4.5 mg/L	48 hour	
	EL <sub>50</sub>	Green Algae	3.7 mg/L	96 hour	
Xylene	No relevant data available				

Skye Chem WD-RTU Page 9 of 12

Methyl Isobutyl Ketone	LC <sub>0</sub>	Leuciscus idus melanotus	480 mg/L	48 hour
	EC <sub>50</sub>	Daphnia Magna	1,550-3,623 mg/L	24 hour
	EC <sub>50</sub>	Green Algae	980-2,000 mg/L	48 hour
Ethylbenzene	LC <sub>50</sub>	Menidia menidia	5.1 mg/L	96 hour
	EC <sub>50</sub> (static)	Daphnia magna	1.8-2.4 mg/L	48 hour
	EC <sub>50</sub> (static)	Skeletonema costatum	4.9 mg/L	72 hour
Sulfosuccinate	LC <sub>50</sub>	Danio rerio	49 mg/L	96 hour
	EC <sub>50</sub> (static)	Daphnia Magna	10.3 mg/L	48 hour
	EC <sub>50</sub> (static)	Green Algae	39.3 mg/L	72 hour
	Growth Inhibition	Pseudomonas putida	164 mg/L	16 hour
Phosphate Ester	LC <sub>50</sub>	Fish	189 mg/L	96 hour
	LC <sub>50</sub>	Daphnia	111 mg/L	48 hour
	EC <sub>50</sub>	Algae	94 mg/L	78 hour

Terrestrial Ecotoxicity : Sulfosuccinate – Growth Inhibition (*P. putida*) 164 mg/L (16 hour)

Biodegradability

No relevant data available

Bioaccumulation potential

No relevant data available

Mobility in soil

No relevant data available

Other Information

None

# 13. Disposal Considerations

Waste Disposal Methods : Dispose in accordance to with federal, provincial or local regulations.

Safe Handling Procedures : Put on appropriate protective equipment. (See section 8). Eating Drinking and smoking

should be prohibited in areas where this material is handled stored or processed. Workers should wash hands and face before eating drinking and smoking. Do not get

on eyes skin or clothing. Do not ingest.

Disposal of contaminated

packaging

Empty containers should be recycled or disposed through an approved waste

management facility.

14. Transport Information						
Regulatory Information	UN Number	Proper shipping name	Hazard Classes	Packing Group	Label	Additional information
DOT	1268	Petroleum Distillates, N.O.S. (Contains Solvent Naphtha (Petroleum), Light Aliphatic)	3	II	3	-

Skye Chem WD-RTU Page 10 of 12

TDG	1268	Petroleum Distillates, N.O.S. (Contains Solvent Naphtha (Petroleum), Light Aliphatic)	3	II	-
IMDG	1268	Petroleum Distillates, N.O.S. (Contains Solvent Naphtha (Petroleum), Light Aliphatic)	3	Ш	-
IATA-DGR Class	1268	Petroleum Distillates, N.O.S. (Contains Solvent Naphtha (Petroleum), Light Aliphatic)	3	II	-
CFR	1268	Petroleum Distillates, N.O.S. (Contains Solvent Naphtha (Petroleum), Light Aliphatic)	3	II	-

Environmental Hazards : Avoid Dispersal of the material and runoff and contact with soil, waterways, drains

and sewers.

Transport in Bulk : Use appropriate containment to avoid environmental contamination.

Special Precautions : None

## 15. Regulatory Information

GHS Hazards : Flam – 2; Acute Tox. (Oral) – 3; Acute Tox. (Dermal) – 5; Acute Tox. (Inhal.) – 4; Skin

Corr./Irrit. – 2; Eye Dam./Irrit. - 1; Mutagen - 1B; Carcinogen – 2; Reproductive – 2; STOT-SE – 3 (resp.); STOT-SE – 3 (narc.); STOT-RE – 2; Asp. – 1; Aq. Tox. (Acute) – 2

WHMIS Hazards : B3, D1B, D2B, E

Canada CEPA (DSL) : All ingredients are on the Canadian Domestic Substances list

EU CLP (REACH) Hazards : Flam – 2; Acute Tox. (Oral) – 3; Acute Tox. (Inhal.) – 4; Skin Corr./Irrit. – 2; Eye

Dam./Irrit. - 1; Mutagen - 1B; Carcinogen - 2; Reproductive - 2; STOT-SE - 3 (resp.);

STOT-SE-3 (neuro.); STOT-RE-2; Asp.-1

TSCA Status : TSCA 8b

SARA 311/312 Hazards : Fire Hazard

Chronic Health Hazard Acute Health Hazard

Skye Chem WD-RTU Page 11 of 12

**SARA 313** 

: The following components are subject to reporting levels established by SARA Title III,

Section 313

100-41-4Ethylbenzene0.1-1%1330-0-7Xylene0.5-2%108-10-1Methyl Isobutyl Ketone0.5-2%123-91-11,4-Dioxane<0.01%</td>

**US Federal Regulations** 

Massachusetts Right-to-Know: Ethylbenzene, Xylene, Methyl Isobutyl Ketone,

Phosphoric Acid, Docusate sodium

Pennsylvania Right-to-Know: Ethylbenzene, Xylene, Methyl Isobutyl Ketone,

Phosphoric Acid, Docusate sodium

New Jersey Right-to-Know: Ethylbenzene, Xylene, Methyl Isobutyl Ketone, Docusate

sodium

Rhode Island Right-to-Know: Phosphoric Acid

California Prop. 65 Components: WARNING! This product contains a chemical known

to the State of California to cause cancer

100-41-4 Ethylbenzene

108-10-1 Methyl Isobutyl Ketone

75-21-8 Ethylene Oxide 123-91-1 1,4-dioxane

## 16. Other Information

\*\* SKYE PETROLEUM, INC. EXPRESSLY DISCLAIMS ALL EXPRESSED OR IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PRODUCT PROVIDED.\*\*

The information is provided without warranty, express or implied, and is accurate to the best of the knowledge of Skye Petroleum, Inc. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The data on this sheet refers only to the specific material designated herein. Skye Petroleum, Inc. assumes no legal responsibility for use or reliance upon these data.

Skye Chem WD-RTU Page 12 of 12