

# Material Safety Data Sheet

**Aqua Solutions**  
**6913 Highway 225**  
**Deer Park, TX 77536**

**Phone (281) 479-2569**  
**Chemtrec 800-424-9300**  
**24 Hour Emergency Assistance**

<b>Section 1 Identification MIXTURE "A"</b>					
Product Number:	0003146				
Product Name:	Sulfur Flowers (Flour) Powder, Sublimed	Health:	1		
		Flammability:	1		
		Reactivity:	0		
Trade/Chemical Synonyms		Hazard Rating:			
		Least Slight Moderate High Extreme			
Formula:	S <sup>-</sup>	0	1	2	3
RTECS:	WS4250000	NA = Not Applicable NE = Not Established			
C.A.S	CAS# 7704-34-9				
<b>Section 2 Component Mixture</b>					
Sara 313	Component	CAS Number	%	Dim	Exposure Limits:
<input type="checkbox"/>	Sulfur Flowers (Flour) Powder, Sublimed	CAS# 7704-34-9	100%	W/W	TXDS: oral-rat LD <sub>50</sub> : 5,000 mg/Kg
<b>Section 3 Hazard Identification (Also see section 11)</b>					
May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling.					
<b>Section 4 First Aid Measures</b>					
May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling.					
FIRST AID: SKIN: Wash exposed area with soap and water. If irritation persists, seek medical attention.					
EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen					
INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.					
<b>Section 5 Fire Fighting Measures</b>					
Fire Extinguisher Type:	Water Spray, Sand				
Fire/Explosion Hazards:	Dust at sufficient concentrations can form explosive mixtures with air.				
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.				
<b>Section 6 Accidental Release Measures</b>					
Sweep up and place in suitable (fiberboard) containers for reclamation or later disposal.					
<b>Section 7 Handling and Storage</b>					
Store in a cool, dry, well-ventilated place away from incompatible materials. Wash thoroughly after handling.					
<b>Section 8 Exposure Controls &amp; Personal Protection</b>					
Respiratory Protection: NIOSH approved dust mask					
Ventilation:		Mechanical: <input checked="" type="checkbox"/>	Hand Protection: <input type="checkbox"/>	Gloves to prevent skin exposure as latex or vinyl	
		Local Exhaust: <input type="checkbox"/>	Eye Protection: Splash Goggles		
Other Protective Equipment: Wear appropriate clothing to prevent skin exposure					
<b>Section 9 Physical and Chemical Properties</b>					
Melting Point:	112° C	Specific Gravity	2.07		
Boiling Point:	Decomposes	Percent Volatile by Volume:	0		
Vapor Pressure:	1 @ 183.3° C	Evaporation Rate:	N/A		
Vapor Density:	N/A	Evaporation Standard:	Not applicable		
Solubility in Water:	Insoluble	Auto ignition Temperature:	Not applicable		
Appearance and Odor:	Yellow Powder, Odorless	Lower Flamm. Limit in Air:	Not applicable		
Flash Point:	207° C	Upper Flamm. Limit in Air:	Not applicable		
<b>Section 10 Stability and Reactivity Information</b>					
Stability: Stable		Conditions to Avoid: None known			
Materials to Avoid: Oxidizing materials					
Hazardous Decomposition Products: Sulfur Dioxide					
Hazardous Polymerization: Will Not Occur					
Condition to Avoid: None known					
<b>Section 11 Additional Information</b>					
Effects of over-exposure, Acute and Chronic: Very low Toxicity. Nuisance dust. Chronic inhalation can cause irritation of mucous membranes. Conditions aggravated/target organs: Persons with pre-existing eye, skin or respiratory conditions may be more susceptible.					
DOT Classification: Not Regulated					
DOT regulations may change from time to time. Please consult the most recent version of the relevant regulations.					
Revision No: 0.1 Date Entered: 3/4/2009 Approved by: WPF					

The information contained herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty is expressed or implied regarding the completeness or accuracy of this information, whether originating from Aqua Solutions, Inc. or from an alternate source. Users of this material should satisfy themselves by independent investigation of current scientific and medical information that this material may be safely handled.

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<b>Section 1 Identification</b>		<b>MIXTURE "B"</b>	
Product Number:	R3449	Health:	0
Product Name:	Iron Filings Fine	Flammability:	0
Trade/Chemical Synonyms:		Reactivity:	0
Formula:	Fe(m)	Hazard Rating: Least Slight Moderate High Extreme	
RTECS:	NO4565500	0 1 2 3 4	
C.A.S	CAS# 7439-89-6	NA = Not Applicable NE = Not Established	
<b>Section 2 Component Mixture</b>			
Sara 313	Component	CAS Number	%
<input type="checkbox"/>	Iron Metal	CAS# 7439-89-6	100%
		Dim	Exposure Limits:
		W/W	TXDS: orl-rat LD•D: 30 g/Kg
<b>Section 3 Hazard Identification (Also see section 11)</b>			
Generally not hazardous in normal handling, however good laboratory practices should always be used. Avoid long term exposure to skin or by inhalation.			
<b>Section 4 First Aid Measures</b>			
Generally not hazardous in normal handling, however good laboratory practices should always be used. Avoid long term exposure to skin or by inhalation.			
FIRST AID: SKIN: Wash exposed area with soap and water. If irritation persists, seek medical attention.			
EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen			
INGESTION: Give several glasses of milk or water. Vomiting may occur spontaneously, but it is not necessary to induce. Never give anything by mouth to an unconscious person.			
<b>Section 5 Fire Fighting Measures</b>			
Fire Extinguisher Type:	Any means suitable for extinguishing surrounding fire		
Fire/Explosion Hazards:	None Known.		
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.		
<b>Section 6 Accidental Release Measures</b>			
Dispose of in a manner consistent with federal, state and local regulations.			
<b>Section 7 Handling and Storage</b>			
Store in a cool dry place. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling			
<b>Section 8 Exposure Controls &amp; Personal Protection</b>			
Respiratory Protection: None required			
Mechanical:		Hand Gloves to prevent Protection: exposure	
Ventilation:		Eye Safety Glasses w/ Protection: Side Shields	
Other Protective Equipment: Wear appropriate clothing to prevent skin exposure			
<b>Section 9 Physical and Chemical Properties</b>			
Melting Point:	1535° C	Specific Gravity	7.87
Boiling Point:	2750° C	Percent Volatile by Volume:	N/A
Vapor Pressure:	N/A	Evaporation Rate:	N/A
Vapor Density:	N/A	Evaporation Standard:	
Solubility in Water:	Insoluble	Auto ignition Temperature:	Not applicable
Appearance and Odor:	Silver to gray metal in powder or granular form	Lower Flamm. Limit in Air:	Not applicable
Flash Point:	N/A	Upper Flamm. Limit in Air:	Not applicable
<b>Section 10 Stability and Reactivity Information</b>			
Stability: Stable Conditions to Avoid: Avoid contact with incompatible materials.			
Materials to Avoid: Strong oxidizing agents, metals, acids, water, mineral acids			
Hazardous Decomposition Products: None			
Hazardous Polymerization: Will Not Occur			
Condition to Avoid: None known			
<b>Section 11 Additional Information</b>			
Avoid contact with eyes skin and skin. May cause irritation. Conditions aggravated/target organs Persons with pre-existing eye, skin or respiratory conditions may be more susceptible.			
DOT Classification: Not Regulated			
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<b>Section 1 Identification</b>		<b>MIXTURE "B"</b>	
Product Number:	0003146		
Product Name:	Sulfur Flowers (Flour) Powder, Sublimed	Health:	1
		Flammability:	1
		Reactivity:	0
Trade/Chemical Synonyms		Hazard Rating: Least Slight Moderate High Extreme 0 1 2 3 4	
Formula:	S <sup>-</sup>	NA = Not Applicable NE = Not Established	
RTECS:	WS4250000		
C.A.S	CAS# 7704-34-9		
<b>Section 2 Component Mixture</b>			
Sara 313	Component	CAS Number	%
	Sulfur Flowers (Flour) Powder, Sublimed	CAS# 7704-34-9	100%
			W/W
			Exposure Limits: TXDS: or-rat LD <sub>50</sub> : 5,000 mg/Kg
<b>Section 3 Hazard Identification (Also see section 11)</b>			
May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling.			
<b>Section 4 First Aid Measures</b>			
May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling.			
FIRST AID: SKIN: Wash exposed area with soap and water. If irritation persists, seek medical attention.			
EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen			
INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.			
<b>Section 5 Fire Fighting Measures</b>			
Fire Extinguisher Type:	Water Spray, Sand		
Fire/Explosion Hazards:	Dust at sufficient concentrations can form explosive mixtures with air.		
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.		
<b>Section 6 Accidental Release Measures</b>			
Sweep up and place in suitable (fiberboard) containers for reclamation or later disposal.			
<b>Section 7 Handling and Storage</b>			
Store in a cool, dry, well-ventilated place away from incompatible materials. Wash thoroughly after handling.			
<b>Section 8 Exposure Controls &amp; Personal Protection</b>			
Respiratory Protection: NIOSH approved dust mask			
Ventilation:	Mechanical: <input checked="" type="checkbox"/>	Hand Protection: <input type="checkbox"/>	Gloves to prevent skin exposure as latex or vinyl
	Local Exhaust: <input type="checkbox"/>	Eye Protection: <input type="checkbox"/>	Splash Goggles
	Other Protective Equipment: Wear appropriate clothing to prevent skin exposure		
<b>Section 9 Physical and Chemical Properties</b>			
Melting Point:	112° C	Specific Gravity	2.07
Boiling Point:	Decomposes	Percent Volatile by Volume:	0
Vapor Pressure:	1 @ 183.3° C	Evaporation Rate:	N/A
Vapor Density:	N/A	Evaporation Standard:	
Solubility in Water:	Insoluble	Auto ignition Temperature:	Not applicable
Appearance and Odor:	Yellow Powder, Odorless	Lower Flamm. Limit in Air:	Not applicable
Flash Point:	207° C	Upper Flamm. Limit in Air:	Not applicable
<b>Section 10 Stability and Reactivity Information</b>			
Stability:	Stable	Conditions to Avoid:	None known
Materials to Avoid:	Oxidizing materials		
Hazardous Decomposition Products:	Sulfur Dioxide		
Hazardous Polymerization:	Will Not Occur		
Condition to Avoid:	None known		
<b>Section 11 Additional Information</b>			
Effects of over-exposure, Acute and Chronic: Very low Toxicity. Nuisance dust. Chronic inhalation can cause irritation of mucous membranes. Conditions aggravated/target organs: Persons with pre-existing eye, skin or respiratory conditions may be more susceptible.			
DOT Classification: Not Regulated			
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<b>Section 1 Identification</b> MIXTURE "C"	
Product Number:	38186-50
Product Name:	Naphthalene Laboratory Grade, Flake
Trade/Chemical Synonyms:	
Formula:	C <sub>10</sub> H <sub>8</sub>
RTECS:	QJ0525000
C.A.S	CAS# 91-20-3
Health:	2
Flammability:	2
Reactivity:	0
Hazard Rating:	Least Slight Moderate High Extreme 0 1 2 3 4
	NA = Not Applicable NE = Not Established

<b>Section 2 Component Mixture</b>					
Sara 313	Component	CAS Number	%	Dim	Exposure Limits:
<input checked="" type="checkbox"/>	Naphthalene	CAS# 91-20-3	100%	V/V	OSHA PEL 10 ppm

<b>Section 3 Hazard Identification (Also see section 11)</b>
Keep away from heat and ignition sources. Harmful if swallowed. Avoid breathing vapors. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

<b>Section 4 First Aid Measures</b>
Keep away from heat and ignition sources. Harmful if swallowed. Avoid breathing vapors. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.
FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention
EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen
INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

<b>Section 5 Fire Fighting Measures</b>
Fire Extinguisher Type: Water spray, Carbon dioxide, dry chemical
Fire/Explosion Hazards: COMBUSTIBLE!! Vapor/air mixtures are EXPLOSIVE! Vapors can flow along surfaces to distant ignition sources and flash back.
Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

<b>Section 6 Accidental Release Measures</b>
Eliminate Ignition Sources.ventilate area of leak or spill.wear protective clothing.sweep up or scoop using non sparking tools.

<b>Section 7 Handling and Storage</b>
Store in a cool dry well ventilated area. Keep away from heat and flame. Do not get in eyes, on skin, or on clothing.

<b>Section 8 Exposure Controls &amp; Personal Protection</b>
Respiratory Protection:Organic Vapor Cartridge
Mechanical: <input checked="" type="checkbox"/> Hand Protection: vinyl or rubber gloves
Ventilation: Local Exhaust: <input checked="" type="checkbox"/> Eye Protection: goggles
Other Protective Equipment: Use safe laboratory handling procedures.

<b>Section 9 Physical and Chemical Properties</b>			
Melting Point:	80°c	Specific Gravity:	1.2
Boiling Point:	218°c	Percent Volatile by Volume:	information not available
Vapor Pressure:	1	Evaporation Rate:	information not available
Vapor Density:	4:4(air=1)	Evaporation Standard:	not available
Solubility in Water:	insoluble	Auto ignition Temperature:	526°c
Appearance and Odor:	whit crystals,moth ball odor.	Lower Flamm. Limit in Air:	0.9
Flash Point:	80°c	Upper Flamm. Limit in Air:	5.9

<b>Section 10 Stability and Reactivity Information</b>
Stability: yes Conditions to Avoid: Avoid contact with heat, sparks, flames, or other sources of ignition.
Materials to Avoid: Strong oxidizing agents, alkalis,acids
Hazardous Decomposition Products: Carbon dioxide, carbon monoxide
Hazardous Polymerization:Will Not Occur
Condition to Avoid:None known

<b>Section 11 Additional Information</b>
this material is COMBUSTABLE!! Eys/skin: flush affected area with large amouts of water for at least 15 min.inhal: remove person to fresh air,aid breathing if needed. Ingestion:seek medical attention immediately. In all cases seek medical attention. Condition aggravated/target organs. Persons with pre-existing eye,skin or respiratory conditions may be more susceptible.
DOT Classification: Naphthalene Refined, 4.1, UN1334, PG III

prolonged. Chronic: none are specified by the manufacturer. Target organs: eyes, and upper respiratory tract. Conditions aggravated/target organs. Persons with pre-existing eye, skin or respiratory conditions may be more susceptible.

DOT Classification: Not Regulated

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