

MATERIAL SAFETY DATA SHEET

Fehlings Solution B TS prepared to USP 30

SECTION 1 . Product and Company Identification

Product Name and Synonym: Fehlings Solution B TS prepared to USP 30

Product Code: F2206

Material Uses:

Manufacturer: Science Stuff
1104 Newport Ave

Austin, TX 78753

(512) 837-6020

Entry Date : 6/4/2013

Print Date: 6/4/2013

24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

Health:	3
Flammability:	0
Reactivity:	0

Hazard Rating:
Least Slight Moderate High Extreme
0 1 2 3 4
NA=Not Applicable NE=Not Established

SECTION 2 HAZARD IDENTIFICATION

Causes severe irritation and burns. May be harmful if swallowed. May be harmful if absorbed through the skin. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling.

SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	Potassium Sodium Tartrate	CAS# 6381-59-5	35%	W/W	None Established
<input checked="" type="checkbox"/>	Sodium Hydroxide	CAS# 1310-73-2	~10%	W/W	OSHA PEL 2 mg/mf ACGIH 2mg/mf
<input type="checkbox"/>	Water, Deionized ASTM Type II	CAS# 7732-18-5	Balance	V/W	None Established

SECTION 4 FIRST AID MEASURES

Causes severe irritation and burns. May be harmful if swallowed. May be harmful if absorbed through the skin. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling.

FIRST AID: SKIN: In case of contact, immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse. 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.

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SECTION 5 FIRE FIGHTING MEASURES

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.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Absorb spill with inert material, then place in a chemical waste container. Dispose of in a manner consistent with federal, local law.

SECTION 7 HANDLING AND STORAGE

Store in a cool dry place. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH/MSHA-approved respirator.
Ventilation
Local Exhaust
Mechanical
Protective Gloves: Gloves to prevent skin exposure as rubber or vinyl
Eye Protection: Splash Goggles
Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	Information not available	Percent Volatile by Volume:	Information not available
Boiling Point:	Information not available	Evaporation Rate	Information not available
Vapor Pressure:	Information not available	Evaporation Standard	
Vapor Density:	Information not available	Auto Ignition Temp	Not applicable
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	Not applicable
Appearance /Odors:	Clear, colorless, odorless liquid	Upper Flamm. Limit in Air	Not applicable
Flash Point:	Information not available		
Specific Gravity:	Information not available		

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability: Stable
Conditions to Avoid: None known

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Materials to Avoid: Strong oxidizing agents, metals, acids.
Hazardous Decomposition Products: None known
Hazardous polymerization: Will Not Occur
Conditions to Avoid: None known

SECTION 11 Toxicological Information

Toxicity data

United States

Product/ingredient name – Sodium Hydroxide

Test	Route	Species	Result
LDLo	Oral	Rabbit	500 mg/kg

Carcinogenic effects: No known significant effects or critical hazards
Mutagenic effects: No known significant effects or critical hazards
Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards

Potassium Sodium Tartrate:
Chronic effects on humans; May cause damage to the following organs:mucous membranes.

Other toxic effects on humans: Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant).

Specific effects
Carcinogenic effects: No known significant effects or critical hazards
Mutagenic effects: No known significant effects or critical hazards
Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards

Sensitization
Ingestion: No known significant effects or critical hazards
Inhalation: No known significant effects or critical hazards
Eyes: Moderately irritating to eyes.
Skin: Moderately irritating to the skin.

SECTION 12 Ecological Information

Aquatic toxicity

Product/ ingredient name
Sodium Hydroxide

Result	Species	Exposure
Acute EC50 40.38 to 47.13 mg/L fresh water	Daphnia- water flea	48 hours
	Ceriodaphnia dudia- neonate	- < 24 hours
Acute LC50 33000 to 100000 ug/L marine	Crustaceans- Common shrimp, sand shrimp- crangon	48 hours

Potassium Sodium Tartrate:
Environmental precautions: No known significant effects or critical hazards.
Products of degradation: These products are carbon oxides (CO, CO2) and water.
Toxicity of the products of biodegradation: The products of degradation are less toxic than the product itself.

SECTION 13 Disposal Considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

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SECTION 14 Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: Corrosive Liquid, n.o.s. (Sodium Hydroxide)
Hazard Class: 8
UN/NA: UN1760
Packing Group: III
Information reported for product/size: 20L

International (Water, I.M.O.)

Proper Shipping Name: Corrosive Liquid, n.o.s. (Sodium Hydroxide)
Hazard Class: 8
UN/NA: UN1760
Packing Group: III
Information reported for product/size: 20L

DOT Classification: Corrosive liquid, n.o.s. (Sodium hydroxide), 8,
UN1760, PG II

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

United States
Highly Toxic material
Corrosive material
Target organ effects

U.S. Federal regulations:
Sodium Hydroxide

United States inventory (TSCA 8b): This material is listed or exempted.
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notifications: No products were found.
SARA 302/304/311/312 hazardous chemicals: Sodium Hydroxide
SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Sodium Hydroxide: Immediate (acute) health hazard.
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: Sodium Hydroxide
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substance: No products were found.
Clean Air Act (CAA) 112 regulated toxic substance: No products were found.

DEA List I Chemicals : not listed
(Precursor Chemicals)
DEA List II Chemicals : not listed
(essential Chemicals)

Massachusetts Substance : This material is listed.
New Jersey Hazardous Substances : This material is listed.
New York Acutely Hazardous Substances : This material is listed.
Pennsylvania RTK Hazardous Substances : This material is listed.

Canada
WHMIS (Canada)
Class D-1B: Material causing immediate and serious toxic effects (Toxic)
Class E: Corrosive material
Canadian lists : CEPA Toxic Substance: This material is not listed.
Canadian ARET: This material is not listed.
Canadian NPRI: This material is not listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.

EU regulations:
Risk phrases: This product is not classified according to EU legislation

International regulations
International lists: Australia inventory (AICS): This material is listed or exempted.

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China inventory (IECSC): This material is listed or exempted.
Japan inventory (ENCS): This material is listed or exempted.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): This material is listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): This material is listed or exempted.
Philippines inventory (PICCS): This material is listed or exempted.

Potassium Sodium Tartrate:
United States

HCS Classification:
Toxic material
Irritating material
Target organ effects

U.S. Federal regulations:

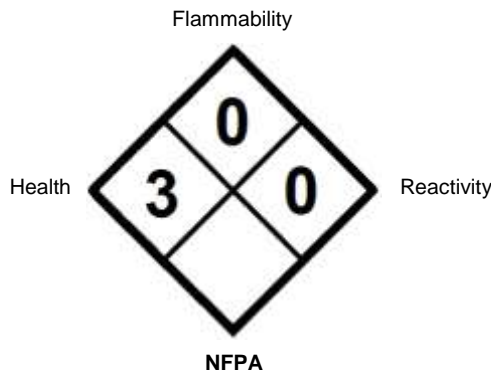
United States inventory (TSCA 8b): listed
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notifications: No products were found.
SARA 302/304/311/312 hazardous chemicals: No products were found.
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Clean Water Act (CWA) 307: No products were found
Clean Water Act (CWA) 311: No products were found
Clean Air Act (CAA) 112 accidental release prevention: No products were found
Clean Air Act (CAA) 112 regulated flammable substance: No products were found
Clean Air Act (CAA) 112 regulated toxic substance: No products were found.

State regulations:
New Jersey: Potassium Sodium Tartrate, Tetrahydrate

Canada
WHMIS (Canada) : Not controlled under WHMIS (Canada).

CEPA DSL/ CEPA NDSL : CEPA DSL:
This material is listed or exempted.
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.

SECTION 16 Additional Information



Revisions

0.1	Revision date LS
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The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.