Necessary Documents:
☐ Event Flyer w/ ASI Logo

CSI Event Reg. Form

# ASSOCIATED Students, Inc. Funding Request Form "...For the Students, by the Students!" 2010, 10

	<b>2</b> 018-19			☐ Estimates / Food Permits
Contact		- 1	Organization	☐ Event Estimates / Invoices
Officer Name:			Club/Organization: Chemistry & Biocl	hemistry Club
Officer Title:			Event Title: Chemistry Club	
Address:			Date(s) of Event:10/24	Semester Fall 201
City/State/Zip:			Location of Event: Outside La Kretz H	lall
Phone & Email:			Expected Total Attendance:	100
Officer Signature:			Expected Attendance of Cal State LA	AStudents:75
	Event D	escription and	d Total Cost Breakdown	
Briefly describe the	e event:		Is the event open to all Cal State LA	students?: yes
These series of ev	vents will host a week-long	g fair of speakers	How will this program enhance the C	•
and educational a "Chemistry is Out	ctivities for children with t	he given theme of	This will raise awareness for 0 exposing students to different Chemistry. Students will have well as participate in outreach	Chemistry Week by aspects and careers in a chance to network as
Hospitality			Honoraria/Contracts	
Descript	tion	Amount	Description	Amount
V				
Marketing			Other	
Descript	tion	Amount	Description	, Amount
			UAS Banquet Order Form	\$494.53
			Demo Materials	\$415.16
	t			
				\
	<b>Event Summary</b>		For Office Use Only • Do	Not Write Below
To	otal Cost of Event:	\$909.69	Important:	
Amount Requ	ested from ASI:	\$3,000.00	(1) <u>All Funding Request Forms must be</u> <u>Friday, the week before the Funding</u>	
Amount fro	om other sources:	\$0.00	(2) Additionally, funding request forms than 10 business days (2 weeks) price	must be turned in no less
What other res	sources are you employing	g for this event?	(3) Deadline for Request for Payment of	or Purchase Order (RPP) is
No other resour	ces.		15 days after the event.	
			All forms must have a Time Stamp staff initial: 5K	ang
			i sao kimb	27 MG:00:53
			W Seed surface	

# The Chemistry & Biochemistry Club presents NATIONAL CHEMISTRY WEEK 2018!

# CHEMISTRY is out of this world

# October 21-27, 2018

# sunday, October 21st Noon-3pm

La Kretz Hall, lobby, bring your space-themed decorations and join us! Pizza will be provided!

# MONDAY, October 22<sup>nd</sup> at 1:00pm

Main Walkway in front of the Lloyd Ferguson Courtyard Grand Kick-Off! We will be launching rockets and giving away Fosselman's ice cream. Don't miss the countdown at 1pm!

# TUESDAY, October 23rd at 12 0000

BIOS 334 Department Seminar, Dr. Joshua Robinson, Penn State University, Synthesis of Two-Dimensional Materials. Free giveaways and lunch provided!

# WEDNESDAY, October 24th 11-12:30PM

Golden Eagle Ballroom, Dr. Laurie Barge, JPL, Self-organizing chemical systems, the emergence of life on early Earth, hydrothermal vents and mineral-organic chemistry, and investigating habitability on other worlds! Includes a live demonstration with hands-on activity immediately following.

# THURSDAY, October 25th 11-2PM

Lloyd Ferguson Courtyard, Science "Fair" with hands-on activities at different booths for children of all ages!

# FRIDAY, October 26th 2-4pm

King Hall Lecture Hall 2, MORE Programs Seminar, Dr. Jillian Clinton, Postdoctoral Fellow, Laboratory of Dr. Harry Gray, Department of Chemistry and Chemical Engineering, Caltech. Water generation by electrochemical CO2 reduction for future Mars missions. La Kretz Lobby, closing ceremony immediately following. Join us for cake and raffle prizes!

For information: chemcsula@gmail.com



the University-Student purchase Special Event

# STUDENT ORGANIZATION EVENT REGISTRATION FORM



This form must be completed 10 business days prior to the event date. Reservations for on campus events will not be confirmed unless this form has been completed. No publicity may be distributed or posted online until this form has been submitted for off campus events or until the reservation confirmation process has been completed for on campus events. Signatures must be completed in blue or black ink.

NAME OF ORGANIZATION: CREMENT & Brochemetry Claim	PHONE: DATE: 9.5.888
EVENT CONTACT NAME:	EMAIL:
NAME OF EVENT: (BEST Special Summar for National Chapters Week	LOCATION: Grouden Earlie Bellin and Fa
EVENT DATE: 10/24/18 BEGIN TIME: 10/01/AM END TIME: 200110	ESTIMATED ATTENDANCE:
	PROGRAM RECREATIONAL PROGRAM TY SERVICE CONFERENCE/CONVENTION
OTHER: SPEAKER/PA	NEL .
WILL YOUR EVENT INCLUDE ANY OF THE FOLLOWING? (PLEASE CHECK ALL TO SPORTS ACTIVITY OR COMPETITION BEACH/FOREST/PARK CLEAN-UP INDOOR/OUTDOOR COOKING AMPLIFIED SOUND ANIMALS  PLEASE DESCRIBE THE EVENT BELOW (INCLUDE ALL ACTIVITIES):	INTERNATIONAL TRAVEL
A great specific from 168 Propulsion Laboratory is annucle to open to empostudents in ea	chranon of National i she matrix Wirth
HOW WILL YOU MARKET THIS EVENT? (CHECK ALL THAT APPLY)	
	ulachemolub : Uother: Salaria
WHO WILL BE INVITED? (CHECK ALL THAT APPLY):  ☐ STUDENT ORG. MEMBERS	OLLEGES & UNIV. GENERAL PUBLIC GUEST LIST
Events intended for the general Cal State LA campus will be listed in the Stuweekly email by the Center for Student Involvement.	udent Organization Calendar of Events distributed in a bi-
WILL THE EVENT HAVE AN ADMISSION CHARGE, REGISTRATION FEE, OR RAISE ANY (If yes, please complete statement regarding proceeds to benefit transactions on the	
WILL A MOVIE BE SHOWN? NO YES (If yes, please attach written proc	of of viewing rights.)
WILL THE EVENT HAVE SECURITY? NO YES If yes, please explain	
WILL FOOD BE SERVED AT THE EVENT? NO YES  IF YES, WHO WILL PROVIDE THE FOOD? WINIVERSITY CATERING OTHER A completed food permit is required for all on-campus events with food under the complete of the compl	·
the state of the s	h a completed request to serve alcoholic beverages.  By take up to two weeks for review and possible approval.)
WILL THE EVENT BEHELD IN A RESTAURANT/VENUE WHERE ALCOHOL IS AVAILABL	E? NO YES Initials
If so, please affirm organization members and guests will no	
WILL OFF-CAMPUS MEDIA BE NOTIFIED ABOUT THE EVENT (NEWSPAPER, DOES THE STUDENT ORGANIZATION WANT TO PURCHASE SPECIAL EVENT	The state of the s
DOES THE STUDENT ORGANIZATION WANT TO PURCHASE SPECIAL EVENT	MOUNTAINE LOS LINES LA LES

Please be aware that student organization events are not covered for liability or other insurance by California State University, Los Angeles or

the University-Student Union. Student organization officers or the advisor may be held personally liable. If the student organization would like to

ent, please contact CSI.

#### STATEMENT REGARDING PROCEEDS TO BENEFIT TRANSACTIONS

As officers of this recognized student organization at Cal State LA, we affirm that all proceeds raised or assets assigned will be used solely for the benefit of the organization as a whole. Further, it is affirmed that no proceeds or assets of this organizations will accrue to the benefit of any officer, member, or any private person. We also affirm that all proceeds transactions for this event will comply with all University policies and procedures including but not limited to ICSUAM Policy 3141.01 and the Cal State LA Student Organization Funds Administration Policy. Describe the admission charge, registration, participation fee, or any proceeds that will be raised to benefit the organization. Please include how much the organization will be charging for any of these proceeds.

		it the organization. Flease	include now muc	in the organiza	ition will be charging	ioi ariy oi iriese	proceeds.
Net again able	This is a free event	for all students.					
PRESIDENT:			SIGNATU	RE:			DATE:
TREASURER:			SIGNATU	RE:			DATE:
U-SU STUDENT	ORGANIZATION AC	COUNT #:		or	APPROVED EXEM	APT STATUS: CS	VERIFICATION
EVENT G	UIDELINES						
		vided for the benefit of th	ie student orgai	nization. The	are intended to be	followed com	oletely. Failure
to comply wi	th any of the follow events and use of fa	ing guidelines may result cilities. More information	in disciplinary can be found o	action taken Inline in the S	against the organiza itudent Organization	ition including n Handbook.	suspension of
CONDUCT:		mes full responsibility for the o sciplinary action by the Center				ity policy may sub	oject the participants and/or
ALCOHOL:	alcoholic beverages Beverages form in a Approved alcohol co	Administrative Procedure 01 requires authorization from ddition to this Event Registronsumption events and eve exual Violence Prevention 8 inforced.	the University. Y ration Form. Plea nts held where al	our organizati se allow at lea cohol is availa	on must complete and st 3 weeks for this for ble (but will not be co	I submit a Reque m to be reviewe nsumed) require	est to Serve Alcoholic d by the University. e at least two TiPS certified
PUBLICITY:	marketing registered been registered. All	I must comply with Universit d events are required to be s printed material may be po tamp must be clearly visible	stamped by CSI p sted for up to a p	orior to their ap period of fourte	proved posting. Stan	nps can be obta	ined after the event has
GENERAL RELEASE:	•	uire the use of general release structions provided by CSI,	•	_			
FOLLOW ALI	L GUIDELINES SET FO	S THAT I WILL TAKE RESPO DRTH BY THE UNIVERSITY. ION BASED ON MY ORGAN	I ACKNOWLEDG	E THAT THIS E	EVENT AND ANY ASS		
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ADVISOR'S	NAME		Ju		,		
ADVISORS	IVAME		B	<i>PJ</i> 5	20	9.	-17-18
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	пишини АС	KNOWLEDGME	ENT - FOI				
		VOLVEMENT (U-SU 204 OGNIZED BY THE UNIVER:		SIGNATI	PRE: )	(	9 1/8/18
	4	DENTS: WELLNESS & EN					
		ED FOR ALL PARTICIPA		\	TE REQUIRED:		
	ATIONS:		-		··········		
PUBL	IC AFFAIRS	DATE:		ATHLETICS		DATE:	
DEPT.	OF PUBLIC SAFETY	DATE:	***************	FACILITIES	USE COORDINATOR		
ОТНЕ	R:	DATE:		U-SU BUSIA	IESS OFFICE	DATE:	

NOTES OR UPDATES: (TIPS-CERTIFIED/SVPT TRAINED MEMBERS, SOCIAL MEDIA SITES/HANDLES, INVITED MEDIA, ADDITIONAL INFORMATION/REQUIREMENTS)

## National Chemistry Week Budget Plan (ASI Funding Request)

#### Monday (10/22): [Total: \$117.95]

Fosselman's Ice Cream: \$41/3 gallon Ice Cream \*2 = \$81

Rocket Material (Estes Tandem-X Flying Model Rocket Launch Set): \$36.95 (Amazon)

## Wednesday (10/24):[ Total: \$909.69]

UAS Banquet Order Form: \$494.53

Demo Materials:

-Sodium Silicate Solution: \$47.75

-100 g Ferric Chloride Hexahydrate: \$101.59

-Test tubes: \$177.77

-Extra Small Gloves (3 boxes): \$88.05

## Thursday (10/25): [Total: \$727.65]

Tables: \$ 7.00 x 10= \$70.00 (Magic Jumper Rentals)

Games:

- -Stomp Rocket + refills: \$21.00+\$7.00= **\$28.00** (Amazon)
- -Saturn rings basketball: \$120 (Magic Jumper Rentals)
- -Bean bag toss: \$119.99 (Amazon)
- -Can Throw/Smash: Cans + Ball
- -Giant Jenga: \$79.99 (Amazon)
- -Galaxy Golf Carnival Game: \$29.00 (Magic Jumper Rentals)

#### Demos:

- -Vinegar: 5.69 (2 Gallons) X 5 = 28.45 (Costco)
- -Baking Soda: \$7.49 (13.5 lbs) X 2= **\$14.98** (Costco)
- -Slime:
  - Tub of clear glue (2): \$39.98 (Amazon)
  - Tub of white glue (2): **\$22.56** (Amazon)
  - little styrofoam stars: \$7.99 (Amazon)
  - glitter stars: \$7.84 (Amazon)

#### Photo Background:

- -Props: **\$9.99** (Amazon)
- -Backdrop: \$36.39 Backdrop Stand + \$32.49 Backdrop (Amazon)

#### **Educational Booth:**

-Solar System Set Up: ~\$100 (Paper Mache)

Food:

-Popcorn kernels: ~\$51.16 (Costco/Sam's Club)

MISC: [Total: \$1,118.15]

Posters: \$312.50 (CSULA)

Gifts:

-Mugs: \$168.00 (VistaPrint)

Prizes:

-ACS \$461.68

Table Covers (2): \$21.98 (Amazon)

Giveaways (ASI Website):

-Six Flag Tickets: \$54

-Knott's Berry Farm: \$44

-AMC 4 Tickets: \$35.99

-Starbucks Gift Cards: \$10 x2= **\$20** 

Total: 2,944.60

# Wed (10/24)



for: Event # E34310 on: Wednesday, October 24, 2018

Client/Organization Department Of Chemistry & Biochemis	Event Date 10/24/2018 (Wed)	Booking Contact		Event # E34310
Address BIOS 336		City, St/Prov Postal Los Angeles, CA 9003	Booking Tel	Guests 50 (Act)
•	Sales Rep Amy Miers	Theme	Ca	ategory

				Ve	nue			
Description	Туре	Start	End			Banquet Room	Setup Style	
		11:00 am	1:00 pm			Ballrm 1	Banquet 10	
	Food & I	Beverage			Equipmen	nt/Miscella ned	ous	
Food/Service Items		Unit	Price	Total	Food/Service Items	Unit	Price	Total
**Lunch Setup at	12:30PM**				Classroom Style for 50 - Setu	ıp		
(50) Dis posables		Each	0.50	25.00	at front of room			
(1) Large (Fifteen 1	12" Sub)	Platter(s)	85.00	85.00	LCD Projector Package		75.00	
-(5) Roasted Turke	y				Podium and Microphone	Each	50.00	
-(5) Chicken Salad								
-(5) Grilled Chicker	n Pesto							
(1) Medium (Ten 1	2" Wraps)	Platter(s)	60.00	60.00				
-(3) Roast Beef	_							
-(3) Caprese								
-(2) Roasted Veggi	ies							
-(2) Tuna Salad								
(1) Medium - Chop	•	Bowl(s)	75.00	75.00				
Fruit (up to 55 gue	ests)							
(1) Medium - Hom		Bowl(s)	75.00	75.00				
Potato Chips With Dip(36-74pp)	Onion							
	To annual of annual	C-11 (-)	22.00	(( 00				
(3) Fresh Brewed U Iced Tea	nsweetened	Gallon(s)	22.00	66.00				
Water Service								

	Food	Beverage	Liquor	Equipment	Labor	Room	Other	Total
Subtotal	320.00	66.00	0.00	0.00	0.00	0.00	0.00	386.00
Service Charge	54.40	11.22	0.00	0.00	0.00	0.00	0.00	65.62
Taxes	35.57	7.34	0.00	0.00	0.00	0.00	0.00	42.91
Total	409.97	84.56	0.00	0.00	0.00	0.00	0.00	494.53

Authorized Signature & Date:\_\_\_\_(Please sign &date all pages)

meg (10124)



# Order Preview(This order has not been submitted)

Order Date:2018-09-19 Purchase Order:		Email order confirmations to:					
Payment Te	rm:Prepaid -	1 day net					
	Subtotal	:47.75 USD					
	Order Total	:47.75 USD					
Line	Product Number	Description		Qty	Your Reference	Your Price	Net Price
	338443-1L		GENT GRADE				

Wed (10/24)

# Cart

• You are viewing the cart as a guest. Taxes and availability are shown for zip code 91803. Sign in or Create a profile for faster check out and to access more features.

	Item	Price	Qty	Subtotal
10 34, 57 10 44, 57	Ferric Chloride Hexahydrate (Lumps/Certified ACS), Fisher Chemical Catalog number 188- 100 Quantity: 100g, Packaging: Poly Bottle	\$101.59 / Each ) \$487.62 / Case of 6 EA	1	\$101.59
		<b>⊘ In Stock</b> 10/03/20	<b>(</b> (1) - Estima 18	ted delivery
	Fisherbrand™ Powder- Free Nitrile Exam Gloves Catalog number 19- 130-1597A Size: X-Small	\$29.35 / Pack of 100 \$249.48 / Case of 10 PK	3	\$88.05
		<b>⊘ In Stoci</b> 09/28/20	<b>k</b> (3) - Estima 18	ted delivery

# **Order Summary**

Subtotal \$189.64

▲ Estimated Shipping

\$45.27

Hazardous material

charge

\$23.25

Shipping fuel surcharge

\$4.95

Shipping charge \$17.07

\$22.31

\$22.31

▲ Estimated Tax

Sales tax

Card Number e Sciences	CC	DRNING E	<b>#</b> (
Expiration Date  Month		V	
Month		Year	
Security Code  (Management of the Code)	352001 Falcon® 14 mL Round Bo Cap, Sterile, Individually Item Price: \$177.77 QUANTITY: 1 UOM: Case QTY/UOM: 500	ottom Polystyrene Test Tube, with / Wrapped, 500/Case	\$177.77 <b>Snap</b>
Subtotal:			\$177.77
Shipping &	Handling (est.):		\$0.00
Order Tota		\$	5 <b>177.77</b>

**Conditions** 

#### Material Safety Data Sheet Ferric chloride solution 10% (BSI)

#### ACC# 88104

#### Section 1 - Chemical Product and Company Identification

MSDS Name: Ferric chloride solution 10% (BSI)

Catalog Numbers: 25018

Synonyms: Iron (III) chloride; Iron chloride; Iron trichloride; Iron sesquichloride.

**Company Identification:** 

Fisher Diagnostics Fisher Scientific Company, LLC 8365 Valley Pike Middletown, VA 22645-0307

For information, call: 800-524-0294 Emergency Number: 800-524-0294

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

#### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7732-18-5	Water	89.9	231-791-2
10025-77-1	Ferric chloride hexahydrate	10	unlisted
7647-01-0	Hydrochloric acid	0.1	231-595-7

#### Section 3 - Hazards Identification

#### **EMERGENCY OVERVIEW**

Appearance: clear yellow liquid. Caution! May be harmful if swallowed. May cause severe respiratory and digestive tract irritation with possible burns. May cause severe eye and skin irritation with possible burns. May cause liver and kidney damage. May cause adverse reproductive effects based upon animal studies. Target Organs: Kidneys, liver.

#### Potential Health Effects

Eye: May cause eye burns. Contact produces irritation, tearing, and burning pain.

Skin: May be absorbed through the skin. May cause severe irritation and possible burns.

Ingestion: May cause liver and kidney damage. May cause perforation of the digestive tract. May cause vascular collapse and damage. Causes severe pain, nausea, vomiting, diarrhea,

Inhalation: Inhalation of vapor may cause severe respiratory tract irritation.

Chronic: Prolonged or repeated exposure may cause adverse reproductive effects. Repeated exposure may increase iron levels in the liver, spleen and lymphatic system. Damage may occur in the spleen and liver.

#### Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid imme diately. Do NOT allow victim to rub eves or keep eves closed.

Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Notes to Physician: Treat symptomatically and supportively.

Antidote: The use of Deferoxamine as a chelating agent should be determined only by qualified medical personnel.

#### Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Substance is noncombustible.

Extinguishing Media: For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable. Explosion Limits, Lower: Not available.

Upper: Not available

NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

#### Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Spill may be carefully neutralized with lime (calcium oxide, CaO).

#### Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Wash hands before eating. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Storage: Do not store in direct sunlight. Store in a cool, dry, well-ventilated area away from incompatible substances.

#### Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Exposure Limits

**Chemical Name** ACGIH NTOSH **OSHA - Final PELs** Water none listed none listed none listed 1 mg/m3 TWA (as Fe) (listed under Iron salts 1 mg/m3 TWA (as Fe) (listed under Iron salts Ferric chloride hexahydrate none listed (soluble) (soluble)) Hydrochloric acid 2 ppm Ceiling 50 ppm IDLH 5 ppm Ceiling; 7 mg/m3 Ceiling

OSHA Vacated PELs: Water: No OSHA Vacated PELs are listed for this chemical. Ferric chloride hexahydrate: No OSHA Vacated PELs are listed for this chemical. Hydrochloric acid: No OSHA Vacated PELs are listed for this chemical.

**Personal Protective Equipment** 

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

#### Section 9 - Physical and Chemical Properties

Physical State: Liquid Appearance: clear yellow Odor: Slight chlorine odor. pH: Not available. Vapor Pressure: Not available. Vapor Density: Not available. Evaporation Rate: Not available. Viscosity: Not available. Boiling Point: Not available. Freezing/Melting Point:Not available. **Decomposition Temperature:**Not available. **Solubility:** Complete in water. Specific Gravity/Density:1.07 (Water=1) Molecular Formula: Not applicable. Molecular Weight:Not available.

#### Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Temperatures above recommended temperatures, incompatible materials,

Incompatibilities with Other Materials: Alkalis, allyl chloride, ethylene oxide, nylon, oxidizers, potassium, sodium. Corrosive to most metals.

Hazardous Decomposition Products: Hydrogen chloride, chlorine, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported

#### Section 11 - Toxicological Information

#### RTECS#:

CAS# 7732-18-5: ZC0110000

CAS# 10025-77-1: N05425000 CAS# 7647-01-0: MW4025000; MW4031000

LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg; CAS# 10025-77-1:

CAS# 7647-01-0:

Inhalation, mouse: LC50 = 1108 ppm/1H;

Inhalation, mouse: LC50 = 20487 mg/m3/5M; Inhalation, mouse: LC50 = 3940 mg/m3/30M;

Inhalation, mouse: LC50 = 8300 mg/m3/30M;

Inhalation, rat: LC50 = 3124 ppm/1H; Inhalation, rat: LC50 = 60938 mg/m3/5M;

Inhalation, rat: LC50 = 7004 mg/m3/30M;

Inhalation, rat: LC50 = 45000 mg/m3/5M;

Inhalation, rat: LC50 = 8300 mg/m3/30M; Oral, rabbit: LD50 = 900 mg/kg;

Carcinogenicity:

CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 10025-77-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 7647-01-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available,

Teratogenicity: No information available

Reproductive Effects: Fertility: Pre-implantation mortality, intravaginal- rat TDLo=29mg/kg. Paternal Effects: Spermatogenesis and Testes/sperm duct/epididymis, intratesticular-rat TDLo=12976ug/kg.

Neurotoxicity: No information available.

Mutagenicity: No information available.

Other Studies: None.

#### Section 12 - Ecological Information

Ecotoxicity: No data available. Daphnia (fresh water) TLm=15ppm/96H Mosquito fish TLm=74ppm/96H Minnow TLm=540ppm/1.5H

Environmental: No information reported.

Physical: No information available.

Other: None.

#### Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed. RCRA U-Series: None listed.

#### Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not reviewed.	No information available,
Hazard Class:		/
UN Number:		
Packing Group:		

#### Section 15 - Regulatory Information

#### **US FEDERAL**

#### **TSCA**

CAS# 7732-18-5 is listed on the TSCA inventory.

CAS# 10025-77-1 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)). CAS# 7647-01-0 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules** 

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

#### **CERCLA Hazardous Substances and corresponding RQs**

CAS# 7647-01-0: 5000 lb final RQ; 2270 kg final RQ

SARA Section 302 Extremely Hazardous Substances

CAS# 7647-01-0: 500 lb TPQ

SARA Codes

CAS # 10025-77-1: acute. CAS # 7647-01-0: acute.

Section 313

This chemical is not at a high enough concentration to be reportable under Section 313. No chemicals are reportable under Section 313.

CAS# 7647-01-0 is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors. Clean Water Act:

CAS# 7647-01-0 is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

CAS# 7647-01-0 is considered highly hazardous by OSHA.

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 10025-77-1 can be found on the following state right to know lists: California, (listed as Iron salts (soluble)), Pennsylvania, (listed as Iron salts (soluble)), Minnesota, (listed as Iron salts (soluble)).

CAS# 7647-01-0 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level: None of the chemicals in this product are listed.

#### **European/International Regulations**

**European Labeling in Accordance with EC Directives** 

**Hazard Symbols:** 

Not available.

Risk Phrases:

#### Safety Phrases:

#### WGK (Water Danger/Protection)

CAS# 7732-18-5: No information available.

CAS# 10025-77-1: No information available.

CAS# 7647-01-0: 1

Canada - DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 7647-01-0 is listed on Canada's DSL List.

Canada - WHMIS WHMIS: Not available.

### **Canadian Ingredient Disclosure List**

CAS# 10025-77-1 (listed as Iron salts (soluble)) is listed on the Canadian Ingredient Disclosure List.

CAS# 7647-01-0 is listed on the Canadian Ingredient Disclosure List.

#### Section 16 - Additional Information

MSDS Creation Date: 10/15/1997 Revision #3 Date: 4/24/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.

Wednesday 10/24 - Demonstrations						
Vendor	Items	Price	Quantity	Total		
Sigma - Aldrich	Sodium Silicate Solution	\$47.75	1	\$47.75		
Fisher Scientific	100g Ferric Chloride Hexahydrate	\$101.59	1	\$101.59		
Coring	Test tubes (500 pieces)	\$177.77	1	\$177.77		
Fisher Scientific	Extra Small Gloves	\$29.35	3	\$88.05		

	Thursday 10/2	5 - Demonstrations		
Vendor	Items	Price	Quantity	Total
Costco	Vinegar	\$5.69	2	\$28.45
Costco	Baking Soda	\$7.49	2	\$14.98
Amazon	Slime:	Control of the Contro		
	Clear Glue, Tub	\$19.99	2	\$39.98
	White Glue, Tub	\$22.56	2	\$45.12
	Styrofoam Stars, Small	\$7.99	1	\$7.99
	Glitter Stars	\$7.84	1	\$7.84

# SAFETY DATA SHEET

Version 5.9 Revision Date 09/28/2017 Print Date 09/28/2018

#### 1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name

Sodium silicate solution

**Product Number** 

338443

Brand

: Sigma-Aldrich

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company

Sigma-Aldrich

3050 Spruce Street

SAINT LOUIS MO 63103

USA

Telephone

+1 800-325-5832

Fax

+1 800-325-5052

1.4 Emergency telephone number

Emergency Phone #

: +1-703-527-3887 (CHEMTREC)

#### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Corrosive to metals (Category 1), H290

Skin corrosion (Category 1), H314

Serious eye damage (Category 1), H318

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Specific target organ toxicity - repeated exposure (Category 1), H372

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statement(s)

P234 Keep only in original container.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face

	protection.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P314	Get medical advice/ attention if you feel unwell.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in corrosive resistant stainless steel container with a resistant inner liner.
P501	Dispose of contents/ container to an approved waste disposal plant.

#### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

Synonyms

: Water glass

Sodium trisilicatesolution

Formula

Na<sub>2</sub>O<sub>7</sub>Si<sub>3</sub>

#### **Hazardous components**

Component		Classification	Concentration
Disodium metasilica	te		
CAS-No.	6834-92-0	Met. Corr. 1; Skin Corr. 1B;	50 - 70 %
EC-No.	229-912-9	Eye Dam. 1; STOT SE 3;	
Index-No.	014-010-00-8	H290, H314, H335	
Silicon dioxide			
CAS-No.	7631-86-9		10 - 20 %
EC-No.	231-545-4		

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

#### 5. FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2 Special hazards arising from the substance or mixture

No data available

#### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### 5.4 Further information

No data available

#### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

#### 6.2 Environmental precautions

Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For disposal see section 13.

#### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1 Control parameters

Components with workplace control parameters

Components with	workplace con	uoi paraili	eter 5	
Component	CAS-No.	Value	Control parameters	Basis
Silicon dioxide	7631-86-9	TWA	20Million particles per cubic foot	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
	Remarks	Based on impinger samples counted by light-field techniques. mppcf X 35.3 = million particles per cubic meter = particles per c.c		

TWA	80mg/m3 / %SiO2	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
TWA	6 mg/m3	USA. NIOSH Recommended Exposure Limits
PEL	6 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

Hazardous components without workplace control parameters

#### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

#### Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min

Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method:

EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### **Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

Do not let product enter drains.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

a) Appearance

Form: liquid

Colour: colourless

b) Odour

No data available

c) Odour Threshold

No data available

12.5 d) Hq e) Melting point/freezing No data available point Initial boiling point and No data available boiling range Flash point Not applicable h) Evaporation rate No data available i) Flammability (solid, gas) No data available Upper/lower No data available flammability or explosive limits Vapour pressure No data available Vapour density No data available 1.39 g/cm3 at 25 °C (77 °F) m) Relative density n) Water solubility No data available o) Partition coefficient: n-No data available octanol/water p) Auto-ignition No data available temperature Decomposition No data available temperature No data available Viscosity Explosive properties No data available

## 9.2 Other safety information

No data available

## 10. STABILITY AND REACTIVITY

Oxidizing properties

#### 10.1 Reactivity

No data available

#### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

No data available

#### 10.4 Conditions to avoid

No data available

#### 10.5 Incompatible materials

No data available

## 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sodium oxides, silicon oxides Other decomposition products - No data available

No data available

In the event of fire: see section 5

#### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

#### **Acute toxicity**

No data available

Inhalation: No data available

Dermal: No data available

No data available

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a

known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a

carcinogen or potential carcinogen by OSHA.

#### Reproductive toxicity

No data available No data available

#### Specific target organ toxicity - single exposure

No data available

## Specific target organ toxicity - repeated exposure

No data available

#### Aspiration hazard

No data available

#### **Additional Information**

RTECS: Not available

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence (Silicon dioxide)

#### 12. ECOLOGICAL INFORMATION

#### 12.1 Toxicity

No data available

#### 12.2 Persistence and degradability

No data available

#### 12.3 Bioaccumulative potential

No data available

#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### 12.6 Other adverse effects

No data available

#### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

#### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### Contaminated packaging

Dispose of as unused product.

#### 14. TRANSPORT INFORMATION

DOT (US)

UN number: 3266

Class: 8

Packing group: III

Proper shipping name: Corrosive liquid, basic, inorganic, n.o.s. (Disodium metasilicate)

Reportable Quantity (RQ): Poison Inhalation Hazard: No

**IMDG** 

UN number: 3266

Class: 8

Packing group: III

EMS-No: F-A, S-B

Proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Disodium metasilicate)

IATA

UN number: 3266

Class: 8

Packing group: III

Proper shipping name: Corrosive liquid, basic, inorganic, n.o.s. (Disodium metasilicate)

#### 15. REGULATORY INFORMATION

#### **SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### **SARA 313 Components**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

#### **Massachusetts Right To Know Components**

	CAS-No.	Revision Date
Silicon dioxide	7631-86-9	1993-04-24
Pennsylvania Right To Know Components		
	CAS-No.	Revision Date
Water	7732-18-5	
Disodium metasilicate	6834-92-0	
Silicon dioxide	7631-86-9	1993-04-24
New Jersey Right To Know Components		
	CAS-No.	Revision Date
Water	7732-18-5	
Disodium metasilicate	6834-92-0	
Silicon dioxide	7631-86-9	1993-04-24

## California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### 16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Eye Dam. Serious eye damage H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H335 May cause respiratory irritation. H372 Causes damage to organs through prolonged or repeated exposure. Met. Corr. Corrosive to metals Skin Corr. Skin corrosion STOT SE Specific target organ toxicity - single exposure

#### **HMIS Rating**

Health hazard: 3
Chronic Health Hazard: \*
Flammability: 0
Physical Hazard 0

#### **NFPA Rating**

Health hazard: 3
Fire Hazard: 0
Reactivity Hazard: 0

#### **Further information**

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#### **Preparation Information**

Sigma-Aldrich Corporation Product Safety – Americas Region 1-800-521-8956

Version: 5.9 Revision Date: 09/28/2017 Print Date: 09/28/2018