



Jodi Riehl testimony in opposition to the PWB filtration project

Jodi Riehl <jriehl85@msn.com>

Sun, Jul 16, 2023 at 2:48 PM

To: "lup-comments@multco.us" <lup-comments@multco.us>



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Dear Mr Hearings Officer,

Attached is the oral testimony I gave online on 6-30-2023. [Case File: T3-2022-16220] I have also attached 2 data sheets of the chemicals I referenced in my speech that are concerning. (You had asked me to submit my testimony in writing and I am doing so today along with the resources I was given from a resource at RFD10). I had also submitted a personal COTA from my perspective. I have lived in my home on Pleasant Home Road since 2010.

If you have any questions, please reach out to me. 503-341-9106 or jriehl85@msn.com

Thank you,

Jodi Riehl

3 attachments — [Download all attachments](#)



Sodium BisulphatePDF (1).pdf

29K [View as HTML](#) [Download](#)



My testimony against PWB June 30 2023.docx

18K [View as HTML](#) [Download](#)



Sodium Hypo n5_.pdf

144K [View as HTML](#) [Download](#)

[Case File: T3-2022-16220]

My name is Jodi Riehl

I live at 8031 SE Pleasant Home Road Gresham OR 97080 which is about 1 ½ miles due west from the proposed site.

I am in opposition to the proposed Portland Water Bureau's filtration plant as I think their application for conditional use has not been met as evidenced by all the testimony given today in opposition, which I also agree with.

Besides having submitted my personal character of the area, today I want to talk about my concerns with the potential for odor coming from the facility after it is in operation.

Many hazardous chemicals will be used and stored onsite. According to the PWB on page 8 of Exhibit A.53 says that only two of the chemicals used (sodium bisulfite and sodium hypochlorite) have the potential to off-gas or generate odors at low levels.

And on page 104 of exhibit A.33 says quote "all chemicals needed for water treatment are pumped into the water through injection lines that are below the water surface. None of these chemicals are applied from the surface or sprayed." Unquote

Then on page 99 of the Exhibit A.33 says quote "no odors will be detected off-site". Unquote

However, they go on to say:

In Exhibit A.53 pg. 8

•that Sodium hypochlorite (or chlorine) is quote "generated at a low concentration of 0.8% solution, so potential for off gassing is especially *low*. These tanks vent to the roof, so there may be slight odor at the roof of the chemical building. It is *unlikely*, that any odor would be noticeable except on the roof of the chemical bldg." unquote

Now, according to The Chlorine Institute: Chlorine gas is a respiratory irritant that the human nose can detect at very low levels (0.2-0.4 parts per million in air; just for reference, one part per million is equivalent to four drops of ink in a 55-gallon barrel of water). At these *low* concentrations, chlorine gas smells very much like household bleach. When levels rise to the range of 1-3 ppm, mild mucous membrane irritation is noted and higher level exposure becomes increasingly dangerous. ([Smells like Chlorine? – Water Quality and Health Council \(waterandhealth.org\)](#) and [Health Hazards - The Chlorine Institute](#))

The PWB needs to study this further and provide evidence that this smell will not go beyond its roofs and property lines BEFORE their application is approved. Therefore, this should not be a condition of approval, as PWB provides no evidence this smell can be contained.

Also, one source from the RFPD10, told me that the Safety Data Sheet for sodium hypochlorite is a 5% solution, NOT a 0.8% solution, as PWB lists. There should be clarification on this.

Next we have the

- Washwater Equalization Basins -Exhibit A.53 on pg. 6- it is written that there will be: Minor odors generated (described as smelling “earthy” and the odor will not leave the facility).

And

- the Sludge Storage Tanks -same exhibit on pg. 7- quote “Earthy odor may be generated but will not be expected to be detectable outside of the tank area of off the facility property.”

Unquote

What are these statements based on? If it generates a smell at all, we want to know how it will be contained or processed to smell like country air.

The sludge tank is also OPEN to the atmosphere (it says on pg 7) and not contained in a building. The East Wind could carry the smell of these chemicals and odors off the property. Again.... the PWB needs to study this further and provide evidence that this smell will not go beyond its property lines BEFORE their application is approved. This should not be a condition of approval, as PWB provides no evidence these smells can be contained.

Thank you for your time to speak today.

Referring to Safety Data Sheet for sodium hypochlorite: (from Charlie Ciecko RFPD10)

The HMMP and the CAS Number listed there is CAS NO. 7681-52-9. I don't have a file for this one.

Referring to sodium bisulfate:

This chemical will be stored on site with max storage of 6,250 gals...suggesting it will be in liquid form. CAS #7631-90-5. Attached is excerpt from the SDS sheet.

SECTION 1: Identification of the substance/mixture and of the company/
undertaking 1.1 Product identifiers

Product name

Product Number Brand Index-No. CAS-No. 7631-90-5

: Sodium bisulfite

: 799394

: SIGALD

: 016-064-00-8 : 7631-90-5

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 :

Telephone : Fax :

1.4 Emergency telephone

Emergency Phone # :

Sigma-Aldrich Inc. 3050 SPRUCE ST
ST. LOUIS MO 63103 UNITED STATES

+1 314 771-5765 +1 800 325-5052

800-424-9300 CHEMTREC (USA) +1-703- 527-3887 CHEMTREC (International)

24 Hours/day; 7 Days/week

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Acute toxicity, Oral (Category 4), H302

Eye irritation (Category 2A), H319

Short-term (acute) aquatic hazard (Category 3), H402

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 Warning

SIGALD - 799394

The life science business of Merck KGaA, Darmstadt, Germany operates as
MilliporeSigma in the US and Canada

Page1 of 10

Hazard statement(s) H302

H319

H402

Precautionary statement(s) P264

P270

P273

P280

P301 + P312 + P330

P305 + P351 + P338

P337 + P313 P501

Harmful if swallowed. **Causes serious eye irritation. Harmful to aquatic life.**

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid release to the environment.

Wear eye protection/ face protection.

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/ attention. Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Contact with acids liberates toxic gas.

SAFETY DATA SHEET

spectrum®



Revision date 23-December-2021

Revision Number 2

1. Identification

Product identifier

Product Name SODIUM HYPOCHLORITE SOLUTION, 5 PERCENT AVAILABLE CHLORINE, REAGENT, ACS

Other means of identification

Product Code(s) S1669

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use No information available

Restrictions on use No information available

Details of the supplier of the safety data sheet

Supplier Address

Spectrum Chemical Mfg. Corp.
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

2. Hazard(s) identification

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Danger

Hazard statements

Causes skin irritation
Causes serious eye damage



Appearance sediment

Physical state Liquid

Odor No information available

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/eye protection/face protection

Precautionary Statements - Response

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 or doctor
IF ON SKIN: Wash with plenty of water and soap
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse

Other information

No information available.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Trade secret
Water	7732-18-5	94	*
Sodium Hypochlorite	7681-52-9	5	*
Sodium Hydroxide	1310-73-2	1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Eye contact	Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical No information available.

Explosion data

Sensitivity to mechanical impact none.

Sensitivity to static discharge none.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation.

Other information Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Hydroxide 1310-73-2	No data available	2 mg/m ³ TWA	-

Appropriate engineering controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Hand protection

Wear suitable gloves. Impervious gloves.

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	sediment
Color	Yellowish
Odor	No information available
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	12-12.5	None known
Melting point / freezing point	no data available	None known
Boiling point / boiling range	no data available	None known
Flash point	no data available	None known
Evaporation rate	no data available	None known
Flammability (solid, gas)	no data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Vapor density	no data available	None known
Relative density	1.1	None known
Water solubility	Miscible in water	None known
Solubility(ies)	no data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	no data available	None known
Decomposition temperature		None known

Kinematic viscosity	no data available	None known
Dynamic viscosity	No data available	None known

Other information

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.
Hazardous decomposition products	None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes. (based on components).
Skin contact	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Redness. Burning. May cause blindness. May cause redness and tearing of the eyes.
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Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	27,486.90 mg/kg
ATEmix (dermal)	80,597.00 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Sodium Hypochlorite	= 8.91 g/kg (Rat)	> 10000 mg/kg (Rabbit)	-

7681-52-9			
Sodium Hydroxide 1310-73-2	325 mg/kg (Rat)	1350 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Classification based on data available for ingredients. Irritating to skin.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Sodium Hypochlorite 7681-52-9	-	Monograph 52 [1991] Hypochlorite salts	-	-

Legend

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target organ effects	respiratory system, Eyes, Skin.
Aspiration hazard	No information available.
Other adverse effects	No information available.
Interactive effects	No information available.

12. Ecological information

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium Hypochlorite 7681-52-9	EC50: =0.095mg/L (24h, Skeletonema costatum)	LC50: 0.03 - 0.19mg/L (96h, Oncorhynchus mykiss) LC50: 0.05 - 0.771mg/L (96h, Oncorhynchus mykiss) LC50: 0.06 - 0.11mg/L (96h, Pimephales promelas) LC50: 0.18 - 0.22mg/L (96h, Oncorhynchus mykiss) LC50: 0.28 - 1mg/L (96h, Lepomis macrochirus) LC50: 0.4 - 0.8mg/L (96h, Lepomis macrochirus) LC50: 4.5 - 7.6mg/L (96h, Pimephales promelas)	-	EC50: 0.033 - 0.044mg/L (48h, Daphnia magna) EC50: =2.1 mg/L (96h, Daphnia magna)
Sodium Hydroxide 1310-73-2	-	LC50: =45.4mg/L (96h, Oncorhynchus mykiss)	-	40.4 mg/L EC50 Ceriodaphnia sp. 48h

Persistence and degradability	No information available.
Bioaccumulation	Inherently biodegradable.

Other adverse effects	No information available.
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13. Disposal considerations

Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

14. Transport information

DOT	not regulated
TDG	not regulated
MEX	not regulated
ICAO (air)	not regulated
IATA	not regulated
IMDG	not regulated
RID	not regulated
ADR	not regulated
ADN	not regulated

15. Regulatory information

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	This product complies with ENCS:
IECSC	This product complies with China:
KECL	Complies
PICCS	Complies
AICS	All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Sodium Hypochlorite 7681-52-9	100 lb final RQ 45.4 kg final RQ	-
Sodium Hydroxide 1310-73-2	1000 lb final RQ 454 kg final RQ	-

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA

Health hazards 3

Flammability 0

Instability 0

Physical and chemical properties -

HMIS

Health hazards 3

Flammability 0

Physical hazards 0

Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGl(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 23-December-2021
Revision Note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet