



Safety Data Sheet (SDS) 3442

SDS Revision Date: 04/07/2015

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Identity 3442
Alternate Names 3442

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

Intended use Contact ChemStation representative.
Application Method Contact ChemStation representative.

1.3. Details of the supplier of the safety data sheet

Company Name ChemStation MnDak
3001 South 17th Street
Moorhead MN 56560

Emergency

CHEMTREC (USA) (800) 424-9300
Customer Service: ChemStation MnDak (218) 233-2727

2. Hazard identification of the product

2.1. Classification of the substance or mixture

Skin Irrit. 2;H315 Causes skin irritation.
Eye Dam. 1;H318 Causes serious eye damage.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Danger

H315 Causes skin irritation.

H318 Causes serious eye damage.

[Prevention]:

P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

P321 Specific treatment (see information on this label).

P362 Take off contaminated clothing and wash before reuse.

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Potassium hydroxide. CAS Number: 0001310-58-3	1.0 - 10	Acute Tox. 4;H302 Skin Corr. 1A;H314	[1][2]
Sodium silicate CAS Number: 0001344-09-8	1.0 - 10	Acute Tox. 4;H302 Skin Irrit. 2;H315 Eye Dam. 1;H318	[1]
Sodium hydroxide CAS Number: 0001310-73-2	1.0 - 10	Skin Corr. 1A;H314 Acute Tox. 4;H312	[1][2]

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General Move victim to fresh air.
Call 911 or emergency medical service if deemed necessary.
Give artificial respiration if victim is not breathing.
Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Administer oxygen if breathing is difficult.
Remove and isolate contaminated clothing and shoes.
In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
For minor skin contact, avoid spreading material on unaffected skin.
Keep victim warm and quiet.
Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Inhalation Move victim to fresh air. Call emergency medical care. Apply artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

Overview Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. See section 2 for further details.

Eyes Causes serious eye damage.

Skin Causes skin irritation.

5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Do not use; water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Hydrogen chloride and chlorine. Chlorine gas rate of decomposition increases with the concentration with temperatures above 85 degrees F (30C).

5.3. Advice for fire-fighters

Wear positive pressure self-contained breathing apparatus (SCBA).

Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Some are oxidizers and may ignite combustibles (wood, paper, oil, clothing, etc.).

Contact with metals may evolve flammable hydrogen gas.

Containers may explode when heated.

TOXIC; inhalation, ingestion or skin contact with material may cause severe injury or death.

Contact with molten substance may cause severe burns to skin and eyes.

Avoid any skin contact.

Effects of contact or inhalation may be delayed.

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

ERG Guide No. 154

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Stop leak if you can do it without risk.

Prevent entry into waterways, sewers, basements or confined areas.

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

DO NOT GET WATER INSIDE CONTAINERS.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Keep unauthorized personnel away.

Stay upwind.

Keep out of low areas.

Ventilate enclosed areas.

7. Handling and storage

7.1. Precautions for safe handling

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Any acidic material, ammonia, urea, oxidizable materials and metals such as nickel, copper, tin, aluminum and iron.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0001310-58-3	Potassium hydroxide.	OSHA	No Established Limit
		ACGIH	Ceiling: 2 mg/m3
		NIOSH	C 2 mg/m3
		Supplier	No Established Limit
0001310-73-2	Sodium hydroxide	OSHA	TWA 2 mg/m3
		ACGIH	Ceiling: 2 mg/m3
		NIOSH	C 2 mg/m3
		Supplier	No Established Limit
0001344-09-8	Sodium silicate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0001310-58-3	Potassium hydroxide.	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0001310-73-2	Sodium hydroxide	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0001344-09-8	Sodium silicate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory

Use NIOSH/MSHA approved respirator, following manufacturer's recommendations when concentrations exceed permissible exposure limits.

Eyes

Wear safety glasses with side shields to protect the eyes. An eye wash station is suggested as a good workplace practice.

Skin

Chemical resistant clothing such as coveralls/apron boots should be worn. Chemical Impervious Gloves

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Light Clear liquid
Odor	Mild
Odor threshold	Not Measured
pH	12.6 - 14.0
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	>212 deg F
Flash Point	>200 degrees F PMCC (non-flammable)
Evaporation rate (Ether = 1)	0.33
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured
Vapor pressure (Pa)	Not Determined
Vapor Density	Not Determined
Specific Gravity	1.037 - 1.057
Solubility in Water	Not Measured
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
Foaming	Moderate

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Any acidic material, ammonia, urea, oxidizable materials and metals such as nickel, copper, tin, aluminum and iron.

10.6. Hazardous decomposition products

Hydrogen chloride and chlorine. Chlorine gas rate of decomposition increases with the concentration with temperatures above 85 degrees F (30C).

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Potassium hydroxide. - (1310-58-3)	365.00, Rat - Category: 4	No data available	No data available	No data available	No data available
Sodium silicate - (1344-09-8)	>2,000.00, Rat - Category: 5	No data available	No data available	No data available	No data available
Sodium hydroxide - (1310-73-2)	6,600.00, Mouse - Category: NA	1,350.00, Rabbit - Category: 4	600.00, Mouse - Category: NA	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Potassium hydroxide. - (1310-58-3)	Not Available	Not Available	Not Available
Sodium silicate - (1344-09-8)	301.00, Lepomis macrochirus	216.00, Daphnia magna	Not Available
Sodium hydroxide - (1310-73-2)	196.00, Poecilia reticulata	40.38, Ceriodaphnia dubia	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

14.1. UN number	NA1760
14.2. UN proper shipping name	Compound, Cleaning, Liquid, (Potassium Hydroxide)
14.3. Transport hazard class(es)	8
14.4. Packing group	III

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification D2B E

US EPA Tier II Hazards

Fire: No

Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): Yes

Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs (lbs):

Potassium hydroxide. (1,000.00)

Sodium hydroxide (1,000.00)

EPCRA 302 Extremely Hazardous :
(No Product Ingredients Listed)

EPCRA 313 Toxic Chemicals:
(No Product Ingredients Listed)

Proposition 65 - Carcinogens (>0.0%):
(No Product Ingredients Listed)

Proposition 65 - Developmental Toxins (>0.0%):
(No Product Ingredients Listed)

Proposition 65 - Female Repro Toxins (>0.0%):

(No Product Ingredients Listed)

Proposition 65 - Male Repro Toxins (>0.0%):

(No Product Ingredients Listed)

N.J. RTK Substances (>1%):

Potassium hydroxide.

Sodium hydroxide

Penn RTK Substances (>1%):

Potassium hydroxide.

Sodium hydroxide

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

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