

MATERIAL SAFETY DATA SHEET

Chemical Product

Product Name : WINKLER'S SOLUTION 'B'

CAS#: Not available.

C.I. No.: Not available.

Synonym: Not available.

Chemical Name: WINKLER'S SOLUTION 'B'

Chemical Formula: Not available.

Composition and Information on Ingredients

Name	S.K.U	% by Weight
WINKLER'S SOLUTION 'B'	GCS-3354	100
Sodium hydroxide	1310-73-2	50%
Water	7732-18-5	34%
Potassium iodide	7681-11-0	16%

Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid.

Danger! Causes eye burns. Causes digestive tract burns. Corrosive. Causes skin burns. Causes respiratory tract burns.

Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes severe eye burns.

Skin: Causes skin burns. May cause deep, penetrating ulcers of the skin. May cause deep, penetrating ulcers of the skin.

Ingestion: Causes gastrointestinal tract burns. Causes severe pain, nausea, vomiting, diarrhea, and shock. Inhalation: Irritation may lead to chemical pneumonitis and pulmonary edema. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma.

Chronic: Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. Chronic ingestion of iodides during pregnancy has resulted in fetal death, severe goiter, and cretinoid appearance of the newborn.

First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Fire and Explosion Data

General Information: Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Use water with caution and in flooding amounts.

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

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 1

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.

Handling and Storage

Handling:

Wash thoroughly after handling. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.

Storage:

Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from strong acids. Keep away from metals. Store protected from light.

Exposure Controls/Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to

keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium hydroxide	2 mg/m ³ Ceiling	10 mg/m ³ IDLH	2 mg/m ³ TWA
Water	none listed	none listed	none listed
Potassium iodide	none listed	none listed	none listed

OSHA Vacated PELs: Sodium hydroxide: No OSHA Vacated PELs are listed for this chemical. Water: No OSHA Vacated PELs are listed for this chemical. Potassium iodide: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear chemical splash goggles and face shield.

Skin: Wear appropriate 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. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Physical and Chemical Properties

Physical State: Liquid

Appearance: clear pink

Odor: Odorless.

pH: Not available.

Physical State: Liquid

Appearance: clear, colorless

Odor: Odorless.

pH: 13-14

Vapor

Pressure: 14 mm

Hg Vapor Density: 0.7 (Air=1)

Evaporation Rate:1.0 (water=1)

Viscosity: Not available.

Boiling Point: 100 deg C

Freezing/Melting Point:0 deg C

Decomposition Temperature:Not available.

Solubility: Soluble.

Specific Gravity/Density:1.5

Molecular Formula:Mixture

Molecular Weight:Not applicable

Stability and Reactivity Data

Chemical Stability: Stable.

Conditions to Avoid: Light.

Incompatibilities with Other Materials: Metals, acids.

Hazardous Decomposition Products: Toxic fumes of sodium oxide, oxides of potassium, iodine.

Hazardous Polymerization: Will not occur.

Toxicological Information

RTECS#:

CAS# 1310-73-2: WB4900000

CAS# 7732-18-5: ZC0110000

CAS# 7681-11-0: TT2975000

LD50/LC50:

CAS# 1310-73-2:

Draize test, rabbit,

eye: 400 ug Mild;

Draize test, rabbit,

eye: 1% Severe;

Draize test, rabbit,

eye: 50 ug/24H

Severe; Draize

test, rabbit, eye: 1

mg/24H Severe;

Draize test, rabbit, skin: 500 mg/24H Severe;

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg;

CAS# 7681-11-0:

Carcinogenicity:

CAS# 1310-73-2: Not listed by ACGIH, IARC,

NTP, or CA Prop 65. CAS# 7732-18-5: Not

listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 7681-11-0: Not listed by ACGIH, IARC,

NTP, or CA Prop 65.

Epidemiology: No information reported.

Teratogenicity: Iodine salts can cause deformity, illness and death of a fetus. No information reported.

Reproductive Effects: No information reported.

Mutagenicity: Mutation data reported.

Neurotoxicity: No information reported.

Ecological Information

Ecotoxicity: No data available. Sodium Hydroxide: TLm, mosquito fish, 125 ppm/96hr. (fresh water); TLm, bluegill, 99 mg/48hr. (tap water).

Environmental: Once liquid, sodium hydroxide leaches rapidly into the soil.

Physical: No information found.

Other: No information found.

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.

Transformation Information

Land transport (ADR-RID)

Proper shipping name : SODIUM HYDROXIDE SOLUTION

UN N° 1824

ADR - Class 8

Labelling – Transport : 8

Sea transport (IMDG) [English only]

Proper shipping name : SODIUM HYDROXIDE SOLUTION

UN N° 1824

IMO-IMDG - Class or division 8

IMO-IMDG - Packing group II

Air transport (ICAO-IATA) [English only]

Proper shipping name : SODIUM
HYDROXIDE SOLUTION UN N°

1824

IATA - Class or division 8

IATA - Packing group II

Other Regulatory Information

US FEDERAL
TSCA

CAS# 1310-73-2 is listed
on the TSCA inventory.
CAS# 7732-18-5 is listed
on the TSCA inventory.
CAS# 7681-11-0 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.

CERCLA Hazardous Substances and corresponding RQs

CAS# 1310-73-2: 1000 lb final RQ; 454 kg final RQ

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 1310-

73-2:

immediate,

reactive. CAS

7681-11-0:

immediate,

delayed.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

CAS# 1310-73-2 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:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 1310-73-2 can be found on the following state right to know lists: California, New Jersey,

Pennsylvania, Minnesota, Massachusetts.

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ. CAS# 7681-11-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

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:

C

Risk Phrases:

R 35 Causes severe burns.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/39 Wear suitable protective clothing and eye/face protection. S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 1310-73-2: 1

CAS# 7732-18-5:

No information available. CAS# 7681-11-0: 1

Canada - DSL/NDSL

CAS# 1310-73-2 is listed on Canada's DSL List. CAS# 7732-18-5 is listed on Canada's DSL List. CAS# 7681-11-0 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of E.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 1310-73-2 is listed on the Canadian Ingredient Disclosure List.

CAS# 7681-11-0 is listed on the Canadian Ingredient Disclosure List.

Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

The information contained herein in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

 **makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly,  will not be responsible for damages resulting from use of or reliance upon this information.**