

SAFETY DATA SHEET

Issue Date 14-Jun-2021 **Revision Date** 26-Jan-2024 **Version** 4.4 **Page** 1 / 14

1. IDENTIFICATION

Product identifier

Product Name SwifTest™ Potassium Iodide Reagent

Other means of identification

Product Code(s) 107760

Safety data sheet number M00030

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory reagent. Determination of chlorine, chromate, ozone.

Uses advised against Consumer use.

Restrictions on use For Laboratory Use Only.

Details of the supplier of the safety data sheet

Manufacturer Address

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

Emergency telephone number

+1(303) 623-5716 - 24 Hour Service

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Specific target organ toxicity (repeated exposure)

Category 1

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word

Danger



Hazard statements

H372 - Causes damage to organs through prolonged or repeated exposure

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Precautionary statements

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P314 - Get medical advice/attention if you feel unwell

P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards Known

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Chemical Family Mixture.

Chemical nature Mixture of inorganic salts.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Potassium iodide (KI)	7681-11-0	90 - 100%	-
Silica, amorphous	7631-86-9	1 - 5%	-

4. FIRST AID MEASURES

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact Wash skin with soap and water.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11 for additional Toxicological Information.

Indication of any immediate medical attention and special treatment needed

5. FIRE-FIGHTING MEASURES

surrounding environment.

Unsuitable Extinguishing Media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the No information available.

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chemical

Hazardous combustion products This material will not burn.

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

U.S. Notice Only persons properly qualified to respond to an emergency involving hazardous

substances may respond to a spill according to federal regulations (OSHA 29 CFR

1910.120(a)(v)) and per your company's emergency response plan and

guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should

respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Use personal protective equipment as required. Evacuate

personnel to safe areas.

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

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

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

Methods for cleaning upTake up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Ensure adequate

ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Flammability class Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
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Potassium iodide (KI) CAS#: 7681-11-0	TWA: 0.01 mg/m³ I inhalable particulate matter S*	NDF	NDF
Silica, amorphous CAS#: 7631-86-9	-	TWA: 50 µg/m³ (vacated) TWA: 6 mg/m³ TWA: 20 mppcf :	IDLH: 3000 mg/m³ TWA: 6 mg/m³

Appropriate engineering controls

Engineering Controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

exceeded or irritation is experienced, ventilation and evacuation may be required.

Hand Protection Wear suitable gloves.

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protectionNo special protective equipment required.

Solid

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. Do not allow

into any sewer, on the ground or into any body of water.

Thermal hazards None under normal processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state

Appearance

powder Color white

Odor Odorless Odor threshold Not applicable

Property Values Remarks • Method

Molecular weight Not applicable

pH 6.7 5% Solution

Melting point / freezing point 680 °C / 1256 °F

Initial boiling point and boiling range No data available

Evaporation rate Not applicable

Vapor pressure Not applicable

Relative vapor density No data available

Specific gravity - VALUE 1 3.07

Partition coefficient No data available

Soil Organic Carbon-Water Partition

Coefficient

No data available

Autoignition temperature No data available

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Decomposition temperatureNo data available

Dynamic viscosity Not applicable

Kinematic viscosity Not applicable

Solubility(ies)

Water solubility

Water solubility classification	Water solubility_	Water Solubility Temperature_
Soluble	> 1000 mg/L	25 °C / 77 °F

Solubility in other solvents

Chemical Name	Solubility classification	<u>Solubility</u>	Solubility Temperature
None reported	No information available	No data available	No information available

Other information

Metal Corrosivity

Steel Corrosion Rate
Aluminum Corrosion Rate

Not applicable Not applicable

Volatile Organic Compounds (VOC) Content

Not applicable

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Potassium iodide (KI)	7681-11-0	Not applicable	-
Silica, amorphous	7631-86-9	No data available	-

Explosive properties

Upper explosion limitNo data availableLower explosion limitNo data available

Flammable properties

Flash point Not applicable

Flammability Limit in Air

Upper flammability limit:No data availableLower flammability limit:No data available

Oxidizing properties No data available.

Bulk density No data available

10. STABILITY AND REACTIVITY

Reactivity

Not applicable.

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Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

None known based on information supplied.

Incompatible materials

Strong oxidizing agents, strong acids, and strong bases.

Hazardous decomposition products

Potassium oxide. Iodine. Iodine compounds.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation No known effect based on information supplied.

Eye contact No known effect based on information supplied.

Skin contact No known effect based on information supplied.

Ingestion No known effect based on information supplied.

Symptoms No information available.

Acute toxicity

Based on available data, the classification criteria are not met

Mixture

No data available.

Ingredient Acute Toxicity Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium iodide (KI)	Rat	2779 mg/kg	None reported	None reported	RTECS
(90 - 100%)	LD ₅₀			·	
CAS#: 7681-11-0					

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE)

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

ATEmix (oral)	No information available
ATEmix (dermal)	No information available
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Skin Corrosion/Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Silica, amorphous (1 - 5%) CAS#: 7631-86-9	Standard Draize Test	Rabbit	500 mg	24 hours	Not corrosive or irritating to skin	IUCLID

Serious eye damage/irritation

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Silica, amorphous (1 - 5%) CAS#: 7631-86-9	Standard Draize Test	Rabbit	25 mg	24 hours	Mild eye irritant	IUCLID

Respiratory or skin sensitization

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Sensitization Data

Test data reported below.

Skin Sensitization Exposure Route

Chemical name	Test method	Species	Results	Key literature references and sources for data
Potassium iodide (KI) (90 - 100%) CAS#: 7681-11-0	Patch test	Human	Not confirmed to be a skin sensitizer	ERMA
Silica, amorphous (1 - 5%) CAS#: 7631-86-9	OECD Test No. 406: Skin Sensitization	Guinea pig	Not confirmed to be a skin sensitizer	IUCLID

STOT - single exposure

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Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium iodide (KI) (90 - 100%) CAS#: 7681-11-0	Mouse LD∟₀	1862 mg/kg	None reported	Lungs, Thorax, or Respiration Dyspnea	RTECS
Silica, amorphous (1 - 5%) CAS#: 7631-86-9	Rat LC∟₀	5000 mg/kg	None reported	None reported	RTECS

Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silica, amorphous	Rat	2.19 mg/L	4 hours	Lungs, Thorax, or	RTECS
(1 - 5%)	LCLo			Respiration	
CAS#: 7631-86-9				Dyspnea	

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium iodide (KI) (90 - 100%) CAS#: 7681-11-0	Rat NOAEL	0.5 mg/kg	90 days	None reported	ECHA

Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint	Reported	Exposure	Toxicological effects	Key literature references and
	type	dose	time		sources for data
Silica, amorphous	Rat	0.154 mg/L	28 days	Lungs, Thorax, or	RTECS
(1 - 5%)	TCLo			Respiration	
CAS#: 7631-86-9				Structural or functional change	
				in trachea or bronchi	

Carcinogenicity

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Carcinogenicity Data

No data available.

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Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Potassium iodide (KI)	7681-11-0	•	•	•	=
Silica, amorphous	7631-86-9	-	Group 3	Known	Χ

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Group 3 - Not classifiable as a human
	carcinogen
NTP (National Toxicology Program)	Does not apply
OSHA	Does not apply

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Mixture invitro Data

No data available.

Substance invitro Data

Test data reported below.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Potassium iodide (KI) (90 - 100%) CAS#: 7681-11-0	Cytogenetic analysis	Rat ascites tumor	500 mg/kg	None reported	Positive test result for mutagenicity	RTECS

Mixture invivo Data

No data available.

Substance invivo Data

No data available.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Reproductive Toxicity Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint	Reported	Exposure	Toxicological effects	Key literature references and
	type	dose	time		sources for data
Potassium iodide (KI)	Human	2700 mg/kg	39 weeks	Specific Developmental	RTECS
(90 - 100%)	TDLo			Abnormalities	
CAS#: 7681-11-0				Endocrine System	

Aspiration hazard

Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Ecotoxicity Based on available data, the classification criteria are not met.

Unknown aquatic toxicity 0% of the mixture consists of components(s) of unknown hazards to the aquatic

environment.

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Mixture

Aquatic Acute Toxicity

No data available.

Aquatic Chronic Toxicity

No data available.

Substance

Aquatic Acute Toxicity

Test data reported below.

Fish

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Silica, amorphous (1 - 5%) CAS#: 7631-86-9	96 hours	Brachydanio rerio	LC ₅₀	5000 mg/L	IUCLID

Crustacea

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Silica, amorphous (1 - 5%)	48 Hours	Ceriodaphnia dubia	EC ₅₀	7600 mg/L	IUCLID
CAS#: 7631-86-9					

Algae

Chemical name	Exposure	Species	Endpoint	Reported dose	Key literature references and
	time		type		sources for data
Silica, amorphous (1 - 5%) CAS#: 7631-86-9	72 Hours	Selenastrum capricornutum	EC50	440 mg/L	IUCLID

Aquatic Chronic Toxicity

No data available.

Persistence and degradability

Mixture

No data available.

Bioaccumulation

MATERIAL DOES NOT BIOACCUMULATE

Mixture

No data available.

Partition coefficient No data available

Mobility

Soil Organic Carbon-Water Partition Coefficient No data available

Other adverse effects
No information available

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13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

products

Do not reuse empty containers.

US EPA Waste Number

Contaminated packaging

Not applicable

Special instructions for disposal

Dilute material with excess water making a weaker than 5% solution. Open cold water tap

completely, slowly pour the material to the drain.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG Not regulated

Additional information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

National Inventories

TSCA Complies
DSL/NDSL Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

EINECS/ELINCS Complies **ENCS** Complies Complies **IECSC** Complies **KECL PICCS** Complies Complies **TCSI** Complies **AICS** Complies **NZIoC**

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

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

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NZIoC - New Zealand Inventory of Chemicals

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

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

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, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Silica, amorphous (CAS #: 7631-86-9)	Carcinogen

WARNING: This product can expose you to chemicals including Silica, amorphous, which is known to the State of California to cause cancer.

For more information, go to http://www.P65Warnings.ca.gov

IMERC: Not applicable

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
Silica, amorphous	-	X	X
7631-86-9			

U.S. EPA Label Information

Chemical name	FIFRA	FDA	
Potassium iodide (KI)	180.0940	21 CFR 184.1634	
Silica, amorphous	180.0930	-	

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

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Special Comments

None

Additional information

Global Automotive Declarable Substance List (GADSL)

Not applicable

NFPA and HMIS Classifications

NFPA	Health hazards - 0	Flammability - 0	Instability - 0	Physical and chemical properties -
HMIS	Health hazards - 1*	Flammability - 0	Physical hazards - 0	Personal protection -
				X - I

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

ACGIH (American Conference of Governmental Industrial Hygienists)

ATSDR ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS (Chemical Carcinogenesis Research Information System)

CDC (Center for Disease Control)

CEPA (Canadian Environmental Protection Agency)

CICAD CICAD (Concise International Chemical Assessment Documents)

ECHA ECHA (The European Chemicals Agency)
EEA EEA (European Environment Agency)
EPA EPA (Environmental Protection Agency)

ERMA (New Zealands Environmental Risk Management Authority)

ECOSARS Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™

FDA FDA (Food & Drug Administration)

GESTIS GESTIS (Information System on Hazardous Substances of the German Social Accident

Insurance)

HSDB (Hazardous Substances Data Bank)

INERIS INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM IPCS INCHEM (International Programme on Chemical Safety)
IUCLID IUCLID (The International Uniform Chemical Information Database)
NITE Japan National Institute of Technology and Evaluation (NITE)

NIH (National Institutes of Health)

NIOSH NIOSH (National Institute for Occupational Safety and Health)
LOLI (List of Lists - An International Chemical Regulatory Database)

NDF no data

NICNAS Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH IDLH Immediately Dangerous to Life or Health

OSHA OSHA (Occupational Safety and Health Administration of the US Department of Labor)

PEEN (Pan European Ecological Network)

RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS (Screening Information Dataset) for High Volume Chemicals

SYKE The Finnish Environment Institute (SYKE)
USDA USDA (United States Department of Agriculture)
USDC (United States Department of Commerce)

WHO (World Health Organization)

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

MAC Maximum Allowable Concentration Ceiling Ceiling Limit Value

X Listed Vacated These values have no official status. The only

binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that

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some reference state regulations of these "liberated" exposure limits in their state

regulations.

SKN* Skin designation SKN+ Skin sensitization
RSP+ Respiratory sensitization ** Hazard Designation
C Carcinogen R Reproductive toxicant

M mutagen

Prepared By Hach Product Compliance Department

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Revision Note None

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

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End of Safety Data Sheet

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