

Issue Date 14-Jun-2021

# SAFETY DATA SHEET

Version 4

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1. IDENTIFICATION			
Product identifier			
Product Name	Potassium Iodide Reagent		
Other means of identification			
Product Code(s)	107799		
Safety data sheet number	M00030		
Recommended use of the chen	nical 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.		

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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

EN / AGHS

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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
P504 - Diapage of contents/ container to an expressed waste diapage plant.

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

# Other Hazards Known

None

# **3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance

Not applicable

#### <u>Mixture</u>

Chemical Family Chemical nature Mixture. 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	<b>Ivice</b> 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 eyelic 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			
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.
Unsuitable Extinguishing Media	Caution: Use of water spray when fighting fire may be inefficient.

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Specific hazards arising from the chemical	No information available.
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 ec	uipment 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			
<b>Environmental precautions</b> See Section 12 for additional ecological information.			
Methods and material for containment and cleaning up			
Methods for containment	ds for containment Prevent further leakage or spillage if safe to do so.		
Methods for cleaning up	Take 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, includ	ing 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				
Potassium iodide (KI)	TWA: 0.01 ppm inhalable	NDF	NDF				
CAS#: 7681-11-0	fraction and vapor						
Silica, amorphous	NDF	TWA: 50 μg/m³	IDLH: 3000 mg/m <sup>3</sup>				
CAS#: 7631-86-9		(vacated) TWA: 6 mg/m <sup>3</sup>	TWA: 6 mg/m <sup>3</sup>				
		TWA: 20 mppcf					
Appropriate engineering controls Engineering Controls							
Individual protection measures, suc Respiratory protection	tion No protective equipment is needed under normal use conditions. If exposure limits are 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 protection	No special protective equipment required.						
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 Odor	powder Odorless	Solid		Color Odor threshold	white Not applical	ble
Property_			Values			Remarks • Method
Molecular weight	t		Not applicable			
рН			6.7			5% Solution
Melting point/free	ezing point		680 °C / 12	56 °F		
Boiling point / bo	iling range		No data availat	ble		
Evaporation rate			Not applicable			
Vapor pressure			Not applicable			
Relative vapor de	ensity		No data availa	ble		
Specific gravity (	water = 1 / air = 1)		3.07			
Partition Coeffici	ent (n-octanol/wate	er)	No data availat	ble		
Soil Organic Carl	bon-Water Partitior	ı	No data availat	ble		

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Coefficient Autoignition temperature	No data available
Decomposition temperature	No 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	-

Upper explosion limit Lower explosion limit	No data available No data available
Flammable properties	
Flash point	Not applicable
Flammability Limit in Air Upper flammability limit: Lower flammability limit:	No data available No data available
Oxidizing properties	No data available.
Bulk density	No data available

# **10. STABILITY AND REACTIVITY**

Reactivity Not applicable.

#### 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

#### Product Acute Toxicity Data 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	None reported	RTECS (Registry of Toxic
(90 - 100%)	LD50		reported		Effects of Chemical
CAS#: 7681-11-0					Substances)

#### **Unknown Acute Toxicity**

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

# **Acute Toxicity Estimations (ATE)**

#### 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.

# Product Skin Corrosion/Irritation Data

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 (The International Uniform Chemical Information Database)

#### Serious eye damage/irritation

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

### Product Serious Eye Damage/Eye Irritation Data

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 (The International Uniform Chemical Information Database)

### **Respiratory or skin sensitization**

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

#### **Product Sensitization Data**

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)	Patch test	Human	Not confirmed to be a skin sensitizer	ERMA (New Zealands Environmental
(90 - 100%)				Risk Management Authority)

CAS#: 7681-11-0				
Silica, amorphous (1 - 5%) CAS#: 7631-86-9	OECD Test No. 406: Skin Sensitization	Guinea pig	Not confirmed to be a skin sensitizer	IUCLID (The International Uniform Chemical Information Database)

# STOT - single exposure

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

### Product Specific Target Organ Toxicity Single Exposure Data 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 (Registry of Toxic Effects of Chemical Substances)
Silica, amorphous (1 - 5%) CAS#: 7631-86-9	Rat LC⊾	5000 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)

# 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 (Registry of Toxic
(1 - 5%)	LCLO	_		Respiration	Effects of Chemical
CAS#: 7631-86-9				Dyspnea	Substances)

# STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

# Product Specific Target Organ Toxicity Repeat Dose Data

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 (The European Chemicals Agency)

# Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silica, amorphous (1 - 5%) CAS#: 7631-86-9	Rat TC⊾₀	0.154 mg/L	28 days	Lungs, Thorax, or Respiration Structural or functional change in trachea or bronchi	RTECS (Registry of Toxic Effects of Chemical Substances)

# **Carcinogenicity**

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

#### Product Carcinogenicity Data

No data available.

# Ingredient Carcinogenicity Data

No data available.

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

# 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 (Occupational Safety and Health Administration of the US Department of	Does not apply
Labor)	

### Germ cell mutagenicity

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

#### Product Germ Cell Mutagenicity invitro Data

No data available.

### Ingredient Germ Cell Mutagenicity 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 (Registry of Toxic Effects of Chemical Substances)

### Product Germ Cell Mutagenicity invivo Data

No data available.

# Ingredient Germ Cell Mutagenicity invivo Data

No data available.

# Reproductive toxicity

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

# Product Reproductive Toxicity Data

No data available.

# Ingredient Reproductive 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)	Human	2700 mg/kg	39 weeks	Specific Developmental	RTECS (Registry of Toxic
(90 - 100%)	TDLo			Abnormalities	Effects of Chemical
CAS#: 7681-11-0				Endocrine System	Substances)

#### 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 component(s) of unknown hazards to the aquatic environment.

## **Product Ecological Data**

**Aquatic Acute Toxicity** No data available.

#### **Aquatic Chronic Toxicity** No data available.

#### **Ingredient Ecological Data**

### **Aquatic Acute Toxicity**

Test data reported below.

#### Fish

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

#### Crustacea

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

#### Algae

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Silica, amorphous	72 Hours	Selenastrum capricornutum	EC <sub>50</sub>	440 mg/L	IUCLID (The International
(1 - 5%)				-	Uniform Chemical Information
CAS#: 7631-86-9					Database)

#### **Aquatic Chronic Toxicity** No data available.

# Persistence and degradability

#### **Product Biodegradability Data** No data available.

Bioaccumulation MATERIAL DOES NOT BIOACCUMULATE **Product Bioaccumulation Data** No data available.

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Partition Coefficient (n-octanol/water)

<u>Mobility</u>

Soil Organic Carbon-Water Partition Coefficient

Other adverse effects No information available No data available

No data available

# 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.
US EPA Waste Number	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
	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	
DSL/NDSL	

Complies 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
IECSC	Complies
KECL - Existing substances	Complies
PICCS	Complies
TCSI	Complies

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AICS NZIoC Complies Complies

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

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 <u>http://www.P65Warnings.ca.gov</u>

**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	Х
7631-86-9			

# U.S. EPA Label Information

EN / AGHS

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

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
				- 1

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

NIOSH IDLH ACGIH NDF	LH Immediately Dangerous to Life or Health ACGIH (American Conference of Govern no data			ental Industrial Hygienists)		
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		
Х	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 some reference state regulations of these "liberated" exposure limits in their state regulations.		
SKN*	Skin designation		SKN+	Skin sensitization		
RSP+ C	Respiratory sensit Carcinogen	ization	** R	Hazard Designation Reproductive toxicant		
Μ	mutagen					
Prepared By		Hach Product Compliance Department				
Issue Date		14-Jun-2021				
<b>Revision Date</b>		14-Jun-2021				
<b>Revision Note</b>		None				
<b>Disclaimer</b>						

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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.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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End of Safety Data Sheet