

Creation Date 22-Sep-2009

Revision Date 19-Dec-2014

**Revision Number** 3

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification

Product Description:	
Cat No. :	
Synonyms	
CAS-No	
EC-No.	
Molecular Formula	

Potassium iodate 418240000; 418240050; 418241000; 418245000 lodic acid, potassium salt. 7758-05-6 231-831-9 I K O3

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

Recommended Use	Laboratory chemicals.
Uses advised against	No Information available

#### 1.3. Details of the supplier of the safety data sheet

Company	Acros Organics BVBA
	Janssen Pharmaceuticalaan 3a
	2440 Geel, Belgium
E-mail address	begel.sdsdesk@thermofisher.com

#### 1.4. Emergency telephone number

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

## **SECTION 2: HAZARDS IDENTIFICATION**

#### 2.1. Classification of the substance or mixture

Physical hazards Oxidizing solids	Category 2	
Health hazards		
Acute oral toxicity	Category 4	
Skin Corrosion/irritation	Category 2	
Serious Eye Damage/Eye Irritation	Category 2	
Specific target organ toxicity - (single exposure)	Category 3	
Environmental hazards		
Based on available data, the classification criteria are not met		

Symbol(s)	O - Oxidizing
	Xn - Harmful
R-phrase(s)	R 8 - Contact with combustible material may cause fire
	R22 - Harmful if swallowed
	R36/37/38 - Irritating to eyes, respiratory system and skin

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

2.2. Label elements



Signal Word

Danger

#### Hazard Statements

H272 - May intensify fire; oxidizer

- H302 Harmful if swallowed
- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H335 May cause respiratory irritation

#### **Precautionary Statements**

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

#### 2.3. Other hazards

No information available

## **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.1. Substances

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008	DSD Classification - 67/548/EEC
Iodic acid (HIO3), potassium salt	7758-05-6	231-831-9	98	Ox. Sol. 2 (H272) Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	O; R8 Xn; R22 Xi; R36/37/38;

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

### **SECTION 4: FIRST AID MEASURES**

#### 4.1. Description of first aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

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Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.
Protection of First-aiders	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

Irritating to eyes. Irritating to skin. . May cause central nervous system depression: May cause adverse kidney effects

#### 4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

## **SECTION 5: FIREFIGHTING MEASURES**

#### 5.1. Extinguishing media

Potassium iodate

## Suitable Extinguishing Media

Flooding quantities of water.

## Extinguishing media which must not be used for safety reasons

No information available.

#### 5.2. Special hazards arising from the substance or mixture

Oxidizer: Contact with combustible/organic material may cause fire. Containers may explode when heated. Risk of explosion by shock, friction, fire or other sources of ignition. Runoff to sewer may create fire or explosion hazard. May ignite combustibles (wood paper, oil, clothing, etc.).

#### Hazardous Combustion Products

Potassium oxides, Hydrogen iodide.

#### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. Keep people away from and upwind of spill/leak. Do not get in eyes, on skin, or on clothing. Do not subject to grinding/shock/friction. Keep combustibles (wood, paper, oil, etc) away from spilled material

#### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so.

#### 6.3. Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Keep in suitable, closed containers for disposal.

#### 6.4. Reference to other sections

ACR41824

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

#### 7.1. Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid shock and friction. Keep away from clothing and other combustible materials. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Do not ingest.

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Do not store near combustible materials.

#### 7.3. Specific end use(s)

Use in laboratories

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### 8.1. Control parameters

### Exposure limits

List source(s):

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
lodic acid (HIO3),	TWA: 5.0 mg/m <sup>3</sup>				
potassium salt					

#### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

#### Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

#### Derived No Effect Level (DNEL) No information available

Route of exposure	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Oral				
Dermal				
Inhalation				

**Predicted No Effect Concentration** No information available. **(PNEC)** 

#### 8.2. Exposure controls

#### **Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective e Eye Protection	rsonal protective equipment         Eye Protection       Goggles (European standard - EN 166)			
Hand Protection	Protec	ctive gloves		
Glove material Natural rubber Nitrile rubber Neoprene PVC	Breakthrough time See manufacturers recommendations	Glove thickness -	EU standard EN 374	Glove comments (minimum requirement)

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced <b>Recommended Filter type:</b> Particulates filter conforming to EN 143
Small scale/Laboratory use	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. <b>Recommended half mask:-</b> Particle filtering: EN149:2001 When RPE is used a face piece Fit Test should be conducted
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	No information available.

### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

#### 9.1. Information on basic physical and chemical properties

Appearance	Off-white
Physical State	Powder Solid
Odor	Odorless
Odor Threshold	No data available
pH	No information available
Melting Point/Range	560 °C / 1040 °F
Softening Point	No data available
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable

**Method -** No information available Solid

Flammability (solid,gas) Explosion Limits	No information available No data available				
Vapor Pressure	No information available				
Vapor Density	Not applicable Solid				
Specific Gravity / Density	3.930				
Bulk Density	No data available				
Water Solubility	soluble				
Solubility in other solvents	No information available				
Partition Coefficient (n-octanol/wat					
Autoignition Temperature	Not applicable				
Decomposition Temperature	No data available	Calid			
Viscosity Explosive Properties	Not applicable No information available	Solid			
Oxidizing Properties	Oxidizer				
Oxidizing Properties	Oxidizer				
9.2. Other information					
Molecular Formula	I K O3				
Molecular Weight	214				
Molecular Weight	211				
S	ECTION 10: STABILITY AND	REACTIVITY			
10.1. Reactivity	Yes				
10.2. Chemical stability					
TOLE: Onennoul stability	Oxidizer: Contact with combustible/organic material may cause fire				
10.3. Possibility of hazardous react	tions				
Hazardous Polymerization Hazardous Reactions	No information available. No information available.				
10.4. Conditions to avoid	Excess heat. Incompatible products. Combustible material.				
10.5. Incompatible materials	Organic materials. Strong oxidizing agents. Sulfides. Peroxides. Metals. Reducing agents. Strong reducing agents. Combustible material.				

#### 10.6. Hazardous decomposition products

Potassium oxides. Hydrogen iodide.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

#### 11.1. Information on toxicological effects

#### **Product Information**

Potassium iodate

(a) acute toxicity; Oral Dermal Inhalation	Category 4 No data available No data available
(b) skin corrosion/irritation;	Category 2
(c) serious eye damage/irritation;	Category 2

Potassium iodate

(d) respiratory or skin sensitization							
Respiratory	No data available						
Skin	No data available						
(e) germ cell mutagenicity;	No data available						
(f) carcinogenicity;	No data available						
	There are no known carcinogenic chemicals in this product						
(g) reproductive toxicity;	No data available						
(g) reproductive texicity,							
(h) STOT-single exposure;	Category 3						
(i) STOT-repeated exposure;	No data available						
Target Organs	No information available.						
(j) aspiration hazard;	Not applicable Solid						

Symptoms / effects, both acute and May cause central nervous system depression: May cause adverse kidney effects delayed

## **SECTION 12: ECOLOGICAL INFORMATION**

<u>12.1. Toxicity</u> Ecotoxicity effects	Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.
<u>12.2. Persistence and degradability</u> Persistence Degradability	Soluble in water, Persistence is unlikely, based on information available. Not relevant for inorganic substances.
12.3. Bioaccumulative potential	Bioaccumulation is unlikely
<u>12.4. Mobility in soil</u>	The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility. Highly mobile in soils
<u>12.5. Results of PBT and vPvB</u> assessment	No data available for assessment.
<u>12.6. Other adverse effects</u> Endocrine Disruptor Information Persistent Organic Pollutant Ozone Depletion Potential	This product does not contain any known or suspected endocrine disruptors This product does not contain any known or suspected substance This product does not contain any known or suspected substance

## **SECTION 13: DISPOSAL CONSIDERATIONS**

#### 13.1. Waste treatment methods

Waste from Residues / Unused Products	Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.
Contaminated Packaging	Dispose of this container to hazardous or special waste collection point.

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European Waste Catalogue (EWC) Other Information	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains.						
SECTION 14: TRANSPORT INFORMATION							
IMDG/IMO							
<u>14.1. UN number</u> 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group	UN1479 OXIDIZING SOLID, N.O.S 5.1 II						
ADR							
<u>14.1. UN number</u> 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group	UN1479 OXIDIZING SOLID, N.O.S 5.1 II						
IATA							
<u>14.1. UN number</u> 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group	UN1479 OXIDIZING SOLID, N.O.S 5.1 II						
14.5. Environmental hazards	No hazards identified						
14.6. Special precautions for user	No special precautions required						
<u>14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</u>	Not applicable, packaged goods						

### **SECTION 15: REGULATORY INFORMATION**

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories

X = listed

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Iodic acid (HIO3), potassium	231-831-9	-		Х	Х	-	Х	Х	Х	Х	Х
salt											

#### **National Regulations**

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.

Take note of Dir 94/33/EC on the protection of young people at work

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

### **SECTION 16: OTHER INFORMATION**

#### Full text of R-phrases referred to under sections 2 and 3

R 8 - Contact with combustible material may cause fire R22 - Harmful if swallowed R36/37/38 - Irritating to eyes, respiratory system and skin

#### Full text of H-Statements referred to under sections 2 and 3

- H272 May intensify fire; oxidizer
- H302 Harmful if swallowed
- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H335 May cause respiratory irritation

#### Legend

**CAS** - Chemical Abstracts Service TSCA - United States Toxic Substances Control Act Section 8(b) Inventory EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances Substances List PICCS - Philippines Inventory of Chemicals and Chemical Substances ENCS - Japanese Existing and New Chemical Substances **IECSC** - Chinese Inventory of Existing Chemical Substances AICS - Australian Inventory of Chemical Substances NZIOC - New Zealand Inventory of Chemicals **KECL** - Korean Existing and Evaluated Chemical Substances WEL - Workplace Exposure Limit TWA - Time Weighted Average IARC - International Agency for Research on Cancer ACGIH - American Conference of Governmental Industrial Hygienists **DNEL** - Derived No Effect Level **PNEC** - Predicted No Effect Concentration LD50 - Lethal Dose 50% **RPE** - Respiratory Protective Equipment LC50 - Lethal Concentration 50% EC50 - Effective Concentration 50% NOEC - No Observed Effect Concentration POW - Partition coefficient Octanol:Water PBT - Persistent, Bioaccumulative, Toxic vPvB - very Persistent, very Bioaccumulative ADR - European Agreement Concerning the International Carriage of ICAO/IATA - International Civil Aviation Organization/International Air Dangerous Goods by Road Transport Association IMO/IMDG - International Maritime Organization/International Maritime MARPOL - International Convention for the Prevention of Pollution from Dangerous Goods Code Ships **OECD** - Organisation for Economic Co-operation and Development ATE - Acute Toxicity Estimate BCF - Bioconcentration factor VOC - Volatile Organic Compounds

#### Key literature references and sources for data

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

#### **Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

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Revision Date	19-Dec-2014
Revision Summary	Update to Format.

### This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

#### Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

## End of Safety Data Sheet