



Iodine Tech Flakes

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 04/07/2017

Revision date: 11/07/2022

SECTION 1: Identification

1.1. Product identifier

Product form	: Substance
Substance name	: Iodine Tech Flakes
Chemical name	: Iodine
Type of product	: Pure substance
CAS No	: 7553-56-2
Product code	: 0969F
Formula	: I ₂
Product group	: Trade product

1.2. Recommended use and restrictions on use

Recommended uses and restrictions : Industrial uses: Uses of substances as such or in preparations* at industrial sites

1.3. Supplier

B.G.R Chemical Products Ltd.
600 Avenue Delmar
H9R 4A8 Pointe Claire
T 514-630-3309 - F 514-630-5951
info@bgrchem.com - <http://www.bgrchem.com>

1.4. Emergency telephone number

Emergency number : 24 hours number:
1-888-CANUTEC (226-8832) North America
1-613-996-6666 International

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS-CA)

Acute toxicity (dermal), Category 4	H312
Acute toxicity (inhal.), Category 4	H332
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-CA labelling

Hazard pictograms (GHS-CA) :



GHS07

Signal word (GHS-CA)	: Warning
Hazard statements (GHS-CA)	: H312+H332 - Harmful in contact with skin or if inhaled H400 - Very toxic to aquatic life
Precautionary statements (GHS-CA)	: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray P271 - Use only outdoors or in a well-ventilated area P273 - Avoid release to the environment P280 - Wear protective gloves/protective clothing/eye protection/face protection P302+P352 - IF ON SKIN: Wash with plenty of water P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing P312 - Call a POISON CENTER or doctor if you feel unwell P321 - Specific treatment (see supplemental first aid instruction on this label) P362+P364 - Take off contaminated clothing and wash it before reuse P391 - Collect spillage P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation



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2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-CA)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification (GHS-CA)
iodine (Main constituent)	(CAS No) 7553-56-2	100	Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Aquatic Acute 1, H400

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. Doctor: administration of corticoid spray.
First-aid measures after skin contact	: Wash immediately with lots of water. Soap may be used. Remove clothing while washing. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Take the container/vomit to the doctor/hospital. Ingestion of large quantities: immediately to hospital.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/injuries after inhalation	: AFTER INHALATION OF DUST: Coughing. Dry/sore throat. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Respiratory difficulties. FOLLOWING SYMPTOMS MAY APPEAR LATER: Risk of lung oedema.
Symptoms/injuries after skin contact	: Tingling/irritation of the skin. ON CONTINUOUS EXPOSURE/CONTACT: Destruction of tissue.
Symptoms/injuries after eye contact	: Irritation of the eye tissue. ON CONTINUOUS EXPOSURE/CONTACT: Corrosion of the eye tissue. Inflammation/damage of the eye tissue.
Symptoms/injuries after ingestion	: AFTER ABSORPTION OF HIGH QUANTITIES: Burns to the gastric/intestinal mucosa. Nausea. Abdominal pain. Diarrhoea. Low arterial pressure. Shock. Disturbances of consciousness. FOLLOWING SYMPTOMS MAY APPEAR LATER: Possible laryngeal spasm/oedema. Decreased renal function. Change in urine output.
Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation. Dry/sore throat. Possible inflammation of the respiratory tract. Loss of weight. Thyroid enlargement/affection. Enlargement of the lymph glands.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	: Adapt extinguishing media to the environment.
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5.2. Unsuitable extinguishing media

Unsuitable extinguishing media	: No unsuitable extinguishing media known.
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5.3. Specific hazards arising from the hazardous product

Fire hazard	: DIRECT FIRE HAZARD. Non combustible. INDIRECT FIRE HAZARD. Promotes combustion. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	: INDIRECT EXPLOSION HAZARD. Reactions with explosion hazards: see "Reactivity Hazard".

5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.



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Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.2. Methods and materials for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the solid spill. Knock down/dilute dust cloud with water spray.

Methods for cleaning up : Stop dust cloud by covering with sand/earth. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Avoid raising dust. Keep away from naked flames/heat. Observe very strict hygiene - avoid contact. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

7.2. Conditions for safe storage, including any incompatibilities

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.

Storage area : Store in a cool area. Keep out of direct sunlight. Store in a dry area. Ventilation at floor level. Meet the legal requirements.

Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. reducing agents. (strong) bases. metals. metal powders.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: glass. MATERIAL TO AVOID: metal. steel. iron. zinc.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

iodine (7553-56-2)		
USA - ACGIH	ACGIH TWA (ppm)	0.01 ppm
USA - ACGIH	ACGIH STEL (ppm)	0.1 ppm
USA - ACGIH	Remark (ACGIH)	Hypothyroidism; URT irr
USA - OSHA	OSHA PEL (Ceiling) (mg/m ³)	1 mg/m ³
USA - OSHA	OSHA PEL (Ceiling) (ppm)	0.1 ppm

8.2. Appropriate engineering controls

No additional information available

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing : GIVE GOOD RESISTANCE: butyl rubber. neoprene. nitrile rubber. polyethylene.

Hand protection : Gloves.

Eye protection : Face shield. In case of dust production: protective goggles.

Skin and body protection : Protective clothing. In case of dust production: head/neck protection. In case of dust production: dustproof clothing.

Respiratory protection : Dust production: dust mask with filter type P3.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Crystalline solid. Powder. Grains. Scales.

Molecular mass : 253.81 g/mol



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Colour	: Metallic violet-black.
Odour	: Irritating/pungent odour.
Odour threshold	: 0.85 ppm 9 mg/m ³
pH	: 5.4
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: 114 °C
Freezing point	: No data available
Boiling point	: 184 °C
Flash point	: Not applicable
Critical temperature	: 512 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 0.4 hPa (20 °C)
Vapour pressure at 50 °C	: 2.8 hPa (50 °C)
Relative vapour density at 20 °C	: 8.8
Relative density	: 4.9
Relative density of saturated gas/air mixture	: No data available
Density	: 4930 kg/m ³
Relative gas density	: No data available
Solubility	: Insoluble in water. Substance sinks in water. Soluble in ethanol. Soluble in ether. Soluble in chloroform. Soluble in tetrachloromethane. Soluble in methanol. Soluble in carbondisulfide. Water: 0.03 g/100ml Ethanol: 21 g/100ml Ether: 27 g/100ml
Log Pow	: 2.49 (Experimental value)
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 0.0022 Pa.s (116 °C)
Viscosity, kinematic (calculated value) (40 °C)	: 0.44624746 mm ² /s
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

9.2. Other information

Saturation concentration	: 3.6 g/m ³
VOC content	: Not applicable
Other properties	: Gas/vapour heavier than air at 20°C. May sublime. Substance has acid reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	: On heating: release of harmful/irritant gases/vapours (iodine). Reacts violently with many compounds e.g.: with (strong) reducers, with combustible materials, with (some) bases and with (some) metal powders: (Increased) risk of fire/explosion.
Chemical stability	: Stable under normal conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Dermal: Harmful in contact with skin.
Acute toxicity (inhalation)	: Inhalation: Harmful if inhaled.



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ATE CA (dermal)	1100.00000000 mg/kg bodyweight
ATE CA (gases)	4500.00000000 ppmv/4h
ATE CA (vapours)	11.00000000 mg/l/4h
ATE CA (dust,mist)	1.50000000 mg/l/4h

Skin corrosion/irritation : Not classified
pH: 5.4

Serious eye damage/irritation : Not classified
pH: 5.4

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

iodine (7553-56-2)

Viscosity, kinematic (calculated value) (40 °C) 0.44624746 mm²/s

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Dangerous for the environment.
Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water : Mild water pollutant (surface water). Highly toxic to fishes. Harmful to invertebrates (Daphnia). Harmful to algae.

iodine (7553-56-2)

LC50 fish 1 0.164 mg/l (LC50; 96 h)

12.2. Persistence and degradability

iodine (7553-56-2)

Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

iodine (7553-56-2)

BCF other aquatic organisms 1	0.027 (BCF)
Log Pow	2.49 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

iodine (7553-56-2)

Log Pow	2.49 (Experimental value)
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12.5. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle/reuse. Remove to an authorized dump (Class I). Do not discharge into surface water.

Additional information : LWCA (the Netherlands): KGA category 05. Hazardous waste according to Directive 2008/98/EC.

SECTION 14: Transport information

14.1. Basic shipping description

In accordance with TDG

Transportation of Dangerous Goods

UN-No. (TDG) : UN3495
Packing group : III - Minor Danger
TDG Primary Hazard Classes : 8 - Class 8 - Corrosives
TDG Subsidiary Classes : 6.1
Transport document description : UN3495 IODINE, 8, III
TDG Proper Shipping Name : IODINE

Hazard labels (TDG) : 8 - Corrosive substances
6.1 - Toxic substances



TDG Special Provisions : 43 - Despite section 2.1 of Part 2, Classification, these dangerous goods are assigned to this classification based on human experience

Explosive Limit and Limited Quantity Index : 5 kg
Excepted quantities (TDG) : E1
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 25 kg

14.2. Transport information/DOT

Department of Transport

Not regulated for transport

14.3. Air and sea transport

IMDG

UN-No. (IMDG) : 3495
Class (IMDG) : 8 - Corrosive substances
Subsidiary risk (IMDG) : 6.1
EmS-No. (1) : F-A
EmS-No. (2) : S-B

IATA

UN-No. (IATA) : 3495
Class (IATA) : 8 - Corrosives
Packing group (IATA) : III - Minor Danger
Subsidiary risk (IATA) : 6.1

SECTION 15: Regulatory information

15.1. National regulations

No additional information available



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CODE: 0969F

15.2. International regulations

iodine (7553-56-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SECTION 16: Other information

Date of issue : 07/04/2017

Revision date : 11/07/2022

Full text of H-statements:

H312	Harmful in contact with skin
H332	Harmful if inhaled
H400	Very toxic to aquatic life

BGR-GHS-SDS

IMPORTANT: The information presented herein is believed to be accurate and is offered only as a guide. Users should make their own tests to determine the suitability of these products for their own particular purposes. Users assume all risk of use, storage and handling of the product. No warranty, express or implied, is made including, but not limited to, implied warranties of merchantability and fitness for a particular purpose. Nothing contained herein shall be construed as a license to operate under, or recommendation to infringe any patents.