



Safety Data Sheet
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	Iodine Titrant, 0.100 N
NCL Catalog Number	I-60
Product Description	Laboratory chemical
Supplier	
NCL of Wisconsin, Inc.	Telephone: 1-800-648-7836 Fax: 715-449-2454
P.O. Box 8	Emergency Contact: 1-800-424-9300 (Chemtrec)
Biramwood, WI 54414	Email: nclabs@nclabs.com

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Skin Irritation	Category 2
Eye Irritation	Category 2A
Skin Sensitization	Category 1
Aquatic Acute	Category 3



Signal Word

Warning

Hazard Statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H402	Harmful to aquatic life.

Precautionary Statements

P261	Avoid breathing mist/vapors/spray.
P264	Wash exposed skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P501	Dispose of contents/container to comply with local, state and federal regulations.

Other Hazards Not Contributing to the Classification

None under normal conditions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity	Not applicable
Common Name	Not applicable

Mixture

Name	CAS #	Approximate %
Water	7732-18-5	94.7
Potassium Iodide	7681-11-0	4.0
Iodine	7553-56-2	1.3

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General First Aid Measures	Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell.
If Inhaled	Remove person to fresh air and keep comfortable for breathing. Allow victim to rest.
In Case of Skin Contact	Remove all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention.
In Case of Eye Contact	Rinse carefully with water for several minutes. Remove contact lenses, if present and easy to do. If eye irritation persists: get medical advice/attention.
If Swallowed	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most Important Symptoms/Effects Acute and Delayed

After Inhalation	May cause an allergic skin reaction.
After Skin Contact	Causes skin irritation.
After Eye Contact	Causes serious eye irritation.

Indication of Immediate Medical Attention and Special Treatment Needed

Seek medical attention if exposed.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media	Foam. Dry powder. Sand. Carbon dioxide. Water spray.
Unsuitable Extinguishing Media	Do not use high pressure water stream.

Special Hazards Arising from the Chemical

Thermal decomposition generates corrosive vapors. Reacts with some metals to release highly flammable gases/vapors.

Special Protective Actions for Fire-Fighters

Wear self-contained breathing apparatus and protective clothing. Keep exposed containers cool with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions	Use personal protective equipment (see section 8). Evacuate area of non-essential personnel. Eliminate ignition sources. Ventilate area.
Environmental Precautions	Prevent entry to surface and ground waters.
Methods and Materials for Containment and Cleaning Up	Clean up spill with inert absorbent material. Collect spillage. Store away from other materials. Ensure compliance with federal, state and local regulations.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling	Avoid contact with eyes and skin. Avoid breathing vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
Conditions for Safe Storage Including any Incompatibilities	Keep in a tightly closed container, stored in a cool, dry, ventilated area. Store away from sunlight, which can contribute to instability. Store away from; strong reducing agents, ammonia, acetaldehyde, metals, and strong bases.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Iodine (7553-56-2)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.1 mg/m ³ Inhalable Fraction
USA ACGIH	ACGIH TWA (ppm)	0.01 ppm Inhalable Fraction
USA ACGIH	ACGIH STEL (mg/m ³)	1 mg/m ³
USA ACGIH	ACGIH STEL (ppm)	0.1 ppm
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	1 mg/m ³
USA OSHA	OSHA PEL (Ceiling) (ppm)	0.1 ppm
Potassium Iodide (7681-11-0)		
USA ACGIH	ACGIH TWA (ppm)	0.01 ppm Inhalable Fraction

Appropriate Engineering Controls

Material should be handled or transferred in a fume hood or with equivalent ventilation. Maintain eye-wash fountain and quick-drench facilities in work area.

Individual Protection Measures

Avoid all unnecessary exposure.

Eye/Face Protection

Use chemical safety goggles and /or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material.

Skin Protection

Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Respiratory Protection

Wear appropriate mask.

Other Information

Do not eat, drink, or smoke when using this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Color	Dark brown
Odor	Characteristic
Odor Threshold	Not determined
pH	Not determined
Melting Point/Freezing Point	Not determined
Initial Boiling Point and Boiling Range	Not determined
Flash Point	Not determined
Evaporation Rate	Not determined
Flammability (Solid, Gas)	Not determined
Upper/Lower Flammability/Explosive Limits	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined
Relative Density	1.1
Solubility	Soluble in water
Partition Coefficient: n-octanol/water	Not determined
Auto-Ignition Temperature	Not determined
Decomposition Temperature	Not determined
Viscosity	Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Not available
Chemical Stability	Stable under ordinary conditions of use and storage.
Possibility of Hazardous Reactions	Not available
Conditions to Avoid	Extremely high or low temperatures. Heat and sunlight can contribute to instability.
Incompatible Materials	Metals, oxidizers, halogen compounds, strong reducing agents, ammonia, and strong bases.

Hazardous Decomposition Products

When heated to decomposition, can emit toxic gases, iodine vapor, potassium oxide, and hydrogen chloride. Thermal decomposition generates corrosive vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity	Not classified
Iodine (7553-56-2)	
LD50 oral rat	14000 mg/kg
LD50 dermal rat	220 mg/kg
ATE (dermal)	1100 mg/kg
ATE (dust, mist)	1.5 mg/l/4h
Water (7732-18-5)	
LD50 oral rat	≥90000 mg/kg
Skin Corrosion/Irritation	Causes skin irritation.
Serious Eye Damage/Irritation	Causes serious eye irritation.
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
Potential Adverse Human Health Effects and Symptoms	No data available
Symptoms/Injuries After Inhalation	May cause an allergic skin reaction.
Symptoms/Injuries After Skin Contact	Causes skin irritation.
Symptoms/Injuries After Eye Contact	Causes serious eye irritation.
Chronic Symptoms	Not available
Other Information	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecology – Water Toxicity	Harmful to aquatic life.
Iodine (7553-56-2)	
LC50 fishes 1	1.7 mg/l
EC50 daphnia 1	0.2 mg/l
Potassium Iodide (7681-11-0)	
LC50 fishes 1	3200 mg/l 120h
EC50 daphnia 1	2.7 mg/l 24h
Persistence and Degradability	Not established
Bioaccumulative Potential	Not established
Log Pow	2.449
Mobility in Soil	Not established
Other Adverse Effects	May cause pH changes in aqueous ecological systems.

SECTION 13: DISPOSAL CONSIDERATIONS**Methods of Disposal**

Disposal Recommendations	Dispose of contents/containers in accordance with federal, state and local regulations.
Other Information	Avoid release to the surrounding environment.

SECTION 14: TRANSPORT INFORMATION

UN Number	Not applicable
UN Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not applicable
Transport in Bulk	Not applicable
Other Precautions	Not applicable

SECTION 15: REGULATORY INFORMATION

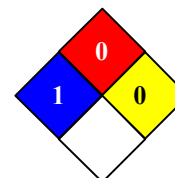
Iodine (7553-56-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
Potassium Iodide (7681-11-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

SECTION 16: OTHER INFORMATION

Revision Date: 04/08/2015

NFPA Hazards

Health Hazard	1: Exposure would cause irritation with only minor residual injury.
Fire Hazard	0: Materials that will not burn.
Reactivity/Instability	0: Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health	1: Irritation or minor reversible injury possible.
Flammability	0: Materials that will not burn.
Physical Hazard	0: Materials that are normally stable
Personal Protection	B

I-60	
Health	1
Flammability	0
Physical Hazard	0
Personal Protection	B

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, NCL of Wisconsin, Inc. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for their conditions of use. Accordingly, NCL of Wisconsin, Inc. will not be responsible for damages of any kind resulting from the use of or reliance upon such information.

END OF SAFETY DATA SHEET