SAFETY DATA SHEET

date:03/01/2018

HCS-2012 APPENDIX D TO §1910.1200

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

8420

Product identifier

Product Name	Phenol red

Other means of identification

Synonyms	No information available

Recommended use of the chemical and restrictions on use

Recommended Use	Testing the water PH value
Uses advised against	No information available

Details of the supplier of the safety data sheet

Supplier	
Address	
Postal Code	
Phone	
FAX	
E-mail	

INTERNATIONAL LEISURE PRODUCTS
191 RODEO DRIVE
EDGEWOOD, N Y 11717
PHONE: (631) 254-2155
FAX: (631) 254-2363

Importer	
Address	
Postal Code	
Phone	
FAX	
E-mail	

Emergency telephone number

+86-21-68559910

2. HAZARDS IDENTIFICATION

GHS Classification

Not classified

Label elements

Symbols/Pictograms	None
Signal word	None
Hazard Statements	Not classified
Precautionary Statements	Not classified

Hazards not otherwise classified (HNOC)

No information available

Unknown acute toxicity

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature Mixture

Chemical Name	CAS No	Weight-%
Water	7732-18-5	>99.45
Sodium hydroxide	1310-73-2	<0.5
Phenol Red	143-74-8	0.05

4. FIRST AID MEASURES

Description of first aid measures

General advice: Remove contaminated clothing and shoes. If symptoms persist, call a physician.

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion: Rinse mouth. Get medical attention. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: No information available.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas
Ensure adequate ventilation, especially in confined areas
Remove all sources of ignition
Avoid contact with skin, eyes and inhalation of vapors
Use personal protection recommended in Section 8

Methods and material for containment and cleaning up

Local authorities should be advised if significant spillages cannot be contained
Prevent entry into waterways, sewers, basements or confined areas
Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13)

7. HANDLING AND STORAGE

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice
Ensure adequate ventilation, especially in confined areas
Avoid contact with skin, eyes or clothing
Wash contaminated clothing before reuse
Do not breathe dust/fume/gas/mist/vapors/spray
Do not eat, drink or smoke when using this product
Wash thoroughly after handling
Use personal protection recommended in Section 8

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place
Keep locked up and out of reach of children
Keep away from food, drink and animal feeding stuffs
Store in accordance with local regulations

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical Name	Australia	Austria	Belgium	Denmark	European Union
Sodium hydroxide (CAS #: 1310-73-2)	2 mg/m3 Peak	STEL 4 mg/m3 TWA: 2 mg/m3	-	Ceiling: 2 mg/m3	-

Chemical Name	Latvia	France	Finland	Germany	Italy
Sodium hydroxide (CAS #: 1310-73-2)	TWA: 0.5 mg/m3	TWA: 2 mg/m3	STEL: 2 mg/m3 Ceiling: 2 mg/m3	-	-

Chemical Name	Poland	Portugal	Spain	Switzerland	Netherlands
Sodium hydroxide (CAS #: 1310-73-2)	STEL: 1 mg/m3 TWA: 0.5 mg/m3	Ceiling: 2 mg/m3	STEL: 2 mg/m3	STEL: 2 mg/m3 TWA: 2 mg/m3	-

Chemical Name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide (CAS #: 1310-73-2)	Ceiling: 2 mg/m3	STEL: 2 mg/m3	Ceiling: 2 mg/m3	TWA: 2 mg/m3 (vacated) Ceiling: 2 mg/m3	IDLH: 10 mg/m3 Ceiling: 2 mg/m3

Appropriate engineering controls

Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hand Protection	Wear protective gloves.
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Color	White & gray
Odor	Odorless
Odor Threshold	Not determined
pH	Not determined
Melting point/freezing point	Water: 0℃
Boiling point / boiling range	Water: 100℃
Flash point	Not determined
Evaporation rate	Not determined
Flammability (solid, gas)	Not flammable
Flammability Limit in Air	Not determined
Vapor Pressure	Not determined
Vapor density	Not determined
Density	Water:1g/cm^3
Relative density	Not determined
Bulk density	Not determined
Specific gravity	Not determined
Water solubility	Not determined
Partition coefficient (LogPow)	Not determined
Autoignition temperature	Non-igniting
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic viscosity	Not determined
Explosive properties	Not an explosive
Oxidizing properties	Not determined

Other information

No information available

10. STABILITY AND REACTIVITY

Reactivity

Stable under recommended storage and handling conditions (see SECTION 7, handling and storage).

Chemical stability

Stable under normal conditions

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks. Incompatible materials.

Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products

None under normal use conditions

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	Harmful if inhaled.
Eye contact	Not an expected route of exposure.
Skin Contact	Immediate medical attention is not required.
Ingestion	Harmful if swallowed

Information on toxicological effects

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium hydroxide (CAS #: 1310-73-2)	-	= 1350 mg/kg (Rabbit)	-

Skin corrosion/irritation

No irritating effects.

Serious eye damage/eye irritation

No irritating effects.

Sensitization

No sensitization responses were observed.

Germ cell mutagenicity

No information available

Carcinogenicity

Not classified.

Reproductive toxicity

No information available

STOT - single exposure

No information available

STOT - repeated exposure

No information available

Aspiration hazard

No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Sodium hydroxide (CAS #: 1310-73-2)	-	45.4 mg/L/96h Oncorhynchus mykiss static	-

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility in soil

No information available

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations
Contaminated packaging	Dispose of in accordance with federal, state and local regulations

14. TRANSPORT INFORMATION

DOT

UN/ID No.	Not regulated
Proper shipping name	Not regulated
Hazard Class	Not regulated
Packing Group	Not regulated
Special precautions	No information available
Marine pollutant	Non-marine pollutant

15. REGULATORY INFORMATION

International Inventories

Component	AICS	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	TSCA
Water 7732-18-5 (98.95%)	X	X	X	Expect	X	X	X	X

Sodium hydroxide 1310-73-2 (1%)	X	X	X	X	X	X	X	X
Phenol Red 143-74-8 (0.05%)	X	X	X	X	X	X	X	X

"-" Not Listed

"X" Listed

16. OTHER INFORMATION

Revision Note

Issue Date	01-Mar-2018
Revision date	01-Mar-2018
Revision Note	Not applicable

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

TWA - TWA (time-weighted average)

STEL - STEL (Short Term Exposure Limit)

Ceiling - Maximum limit value

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

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

AICS - Australian Inventory of Chemical Substances

Disclaimer

The information provided in this Material 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

-------- End of Safety Data Sheet --------

date:03/01/2018

SAFETY DATA SHEET

HCS-2012 APPENDIX D TO §1910.1200

1.1. Product identifier

Product Name	O-Tolidine solution
REACH registration number	No information available

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

Recommended Use	Testing the water cl value
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet

Supplier	
Address	INTERNATIONAL LEISURE PRODUCTS
Postal Code	191 RODEO DRIVE
Phone	EDGEWOOD, N Y 11717
FAX	PHONE: (631) 254-2155
E-mail	FAX: (631) 254-2363
Importer	
Address	
Postal Code	
Phone	
FAX	
E-mail	

1.4. Emergency telephone number

+86-021-68559910

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Corrosive to metals Category 1 - (H290)

2.2. Label elements

Symbols/Pictograms

Signal word	Warning
Hazard Statements	H290 - May be corrosive to metal
Precautionary Statements	P234 - Keep only in original container
	P390 - Absorb spillage to prevent material damage
	P406 - Store in corrosive resistant container with a resistant inliner

2.3. Other hazards

No information available

SECTION 3: Composition/information on ingredients

3.1 Mixture

Chemical Name	EC No	CAS No	Weight-%
Water	231-791-2	7732-18-5	>95.9
Hydrogen chloride	231-595-7	7647-01-0	<4.0
O-Tolidine (3,3`-Dimethylbenzidine)	204-358-0	119-93-7	<0.1

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

Remove contaminated clothing and shoes. If symptoms persist, call a physician.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth Get medical attention Never give anything by mouth to an unconscious person

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

No information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media — Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media — No information available

5.2. Special hazards arising from the substance or mixture

Contact with metals may evolve flammable hydrogen gas which may form explosive mixtures with air.

5.3. Advice for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas
Ensure adequate ventilation, especially in confined areas
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area)
Avoid contact with skin, eyes and inhalation of vapors
Use personal protection recommended in Section 8
Wash thoroughly after handling

6.2. Environmental precautions

Local authorities should be advised if significant spillages cannot be contained
Prevent entry into waterways, sewers, basements or confined areas

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13)

6.4. Reference to other sections

See Section 7 for more information
See section 8 for more information
See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice
Ensure adequate ventilation, especially in confined areas
Avoid contact with skin, eyes or clothing
Wash contaminated clothing before reuse
Keep away from heat, sparks, flame and other sources of ignition
Do not breathe dust/fume/gas/mist/vapors/spray
Do not eat, drink or smoke when using this product
Use personal protection recommended in Section 8
Wash thoroughly after handling

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place
Keep away from heat, sparks, flame and other sources of ignition
Keep locked up and out of reach of children
Keep away from food, drink and animal feeding stuffs
Store in accordance with local regulations

7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	Australia	Austria	Belgium	Denmark	European Union
Hydrogen chloride (CAS #: 7647-01-0)	5 ppm Peak 7.5 mg/m^3 Peak	STEL 10 ppm STEL 15 mg/m^3 TWA: 5 ppm TWA: 8 mg/m^3	-	Ceiling: 5 ppm Ceiling: 8 mg/m^3	TWA 5 ppm TWA 8 mg/m^3 STEL 10 ppm STEL 15 mg/m^3
O-Tolidine (3,3`-Dimethylbenzidine) (CAS #: 119-93-7)	Skin	Skin	-	-	-

Chemical Name	Latvia	France	Finland	Germany	Italy
Hydrogen chloride (CAS #: 7647-01-0)	TWA: 5 ppm TWA: 8 mg/m^3 STEL: 10 ppm STEL: 15 mg/m^3	STEL: 5 ppm STEL: 7.6 mg/m^3	STEL: 5 ppm STEL: 7.6 mg/m^3	TWA: 2 ppm TWA: 3.0 mg/m^3 Ceiling / Peak: 4 ppm Ceiling / Peak: 6 mg/m^3 TWA: 3 mg/m^3	TWA: 5 ppm TWA: 8 mg/m^3 STEL: 10 ppm STEL: 15 mg/m^3
O-Tolidine (3,3`-Dimethylbenzidine) (CAS #: 119-93-7)		-	-	Skin	-

Chemical Name	Poland	Portugal	Spain	Switzerland	Netherlands
Hydrogen chloride (CAS #: 7647-01-0)	STEL: 10 mg/m^3 TWA: 5 mg/m^3	Ceiling: 2 ppm	STEL: 10 ppm STEL: 15 mg/m^3 TWA: 5 ppm TWA: 7.6 mg/m^3	STEL: 4 ppm STEL: 6 mg/m^3 TWA: 2 ppm TWA: 3.0 mg/m^3	STEL: 15 mg/m^3 TWA: 8 mg/m^3
O-Tolidine (3,3`-Dimethylbenzidine) (CAS #: 119-93-7)	-	-	-	TWA: 0.003 ppm TWA: 0.03 mg/m^3	-

Chemical Name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrogen chloride (CAS #: 7647-01-0)	Ceiling: 5 ppm Ceiling: 7 mg/m^3	STEL: 5 ppm STEL: 8 mg/m^3 TWA: 1 ppm TWA: 2 mg/m^3	Ceiling: 2 ppm	(vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m^3 Ceiling: 5 ppm Ceiling: 7 mg/m^3	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m^3

O-Tolidine (3,3`-Dimethylbenzidine) (CAS #: 119-93-7)	-	-	S*	-	Ceiling: 0.02 mg/m^3 60 min

Derived No Effect Level (DNEL)
No information available.

Predicted No Effect Concentration (PNEC)
No information available.

8.2. Exposure controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition.

Personal protective equipment

Eye/face protection	Avoid contact with eyes
Hand Protection	Wear protective gloves
Skin and body protection	Suitable protective clothing
Respiratory protection	Ensure adequate ventilation, especially in confined areas

Environmental exposure controls
Do not allow into any sewer, on the ground or into any body of water

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Aqueous solution
Color	white and grey
Odor	Odorless
Odor Threshold	Not determined
pH	Not determined
Melting point/freezing point	Not determined
Boiling point / boiling range	Not determined
Flash point	Not determined
Evaporation rate	Not determined
Flammability (solid, gas)	Not flammable
Flammability Limit in Air	Not determined
Vapor Pressure	Not determined
Vapor density	Not determined
Density	Not determined
Relative density	Not determined
Specific gravity	Not determined
Water solubility	Water-miscible
Partition coefficient (LogPow)	Not determined
Autoignition temperature	Not determined
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic viscosity	Not determined
Explosive properties	Not an explosive

Oxidizing properties Not determined

9.2. Other information
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No information available.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
Contact with metals may evolve flammable hydrogen gas which may form explosive mixtures with air.

10.4. Conditions to avoid
Strong heating.
Heat, flames and sparks
Incompatible materials

10.5. Incompatible materials
Strong oxidizing agents. Bases. Contact with metals may evolve flammable hydrogen gas.

10.6. Hazardous decomposition products
Hydrogen chloride
Carbon oxides (COx)
Nitrogen oxides (NOx)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrogen chloride (CAS #: 7647-01-0)	-	> 5010 mg/kg (Rabbit)	-

Skin corrosion/irritation
May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation
May cause eye irritation with susceptible persons.

Sensitization
Repeated or prolonged contact may cause allergic reactions in very susceptible persons.

Germ cell mutagenicity
No information available.

Carcinogenicity

Chemical Name	European Union	IARC
Hydrogen chloride (CAS #: 7647-01-0)	-	Group 3
O-Tolidine (3,3`-Dimethylbenzidine) (CAS #: 119-93-7)	Carc. 1B	Group 2B

Reproductive toxicity
No information available.

STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Aspiration hazard
No information available.

SECTION 12: Ecological information

12.1. Toxicity

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Hydrogen chloride (CAS #: 7647-01-0)	-	282: 96 h Gambusia affinis mg/L LC50 static	-

12.2. Persistence and degradability
No information available.

12.3. Bioaccumulative potential

Chemical Name	Partition coefficient (LogPow)
O-Tolidine (3,3`-Dimethylbenzidine) (CAS #: 119-93-7)	2.34

12.4. Mobility in soil
No information available

12.5. Results of PBT and vPvB assessment
PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

12.6. Other adverse effects
No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations

SECTION 14: Transport information

14.1 UN Number	1760(exempt)
14.2 Proper shipping name	CORROSIVE LIQUID, N.O.S.
14.3 Hazard Class	8
14.4 Packing Group	III
14.5 Environmental hazards	Non-marine pollutant
14.6 Special precautions	No information available
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

SECTION 15: Regulatory information

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

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

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

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

International Inventories

Component	TSCA	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Water 7732-18-5 (>95.9)	X	X	X	-	X	X	X	X
Hydrogen chloride 7647-01-0 (<4.0)	X	X	X	X	X	X	X	X
O-Tolidine (3,3`-Dimethylbenzidine) 119-93-7 (<0.1)	X	X	X	X	X	X	X	X

"-" Not Listed

"X" Listed

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

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

Issue Date	01-Mar-2018
Revision date	01-Mar-2018
Revision Note	Not applicable

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

TWA - TWA (time-weighted average)
STEL - STEL (Short Term Exposure Limit)
Ceiling - Maximum limit value
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
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
AICS - Australian Inventory of Chemical Substances

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-------- End of Safety Data Sheet --------