

TENTON SDN BHD

TENMICAL CSL 150 (CHLORITE SOLUTION)

MSDS REPORT

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product name : CSL 150 (Chlorite Solution)
Company name : TENTON Sdn Bhd
Address : PTD 2588, HS(M)1571, JALAN PANCHOR, MUKIM SUNGAI RAYA, DISTRICT
OF MUAR, 84000 MUAR, JOHOR DARUL TA'ZIM
Telephone : +603-9859966
Emergency call : Hotline 999 (Bomba Malaysia)

Product identifier:

Product form	Water solution containing 5.0% Chlorite ClO ⁻
Product name	CSL 150 (Chlorite Solution)
CAS No	14998-27-7
Chemical formula	ClO ⁻

*Hazard Symbols : None listed.

*Risk Phrases : None listed.

Relevant identified uses of the substance or mixture and uses advised against:


Use of the product	Disinfecting food contact surfaces, hand washing, topical wash
	Not to be used as potable drinking water

SECTION 2: HAZARDS IDENTIFICATION

Classification

Physical appearance	Clear yellowish solution
Health Hazards	Skin (1B-H314) & Eye Irritant (1-H318)
Environmental Hazard	Aquatic acute (1-H400)

Label elements

Hazard pictograms (GHS-US)	
Signal word (GHS-US)	Danger
Hazard statements (GHS-US)	H290 May be corrosive to metals H314 Causes severe skin burns and eye damage. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects
Precautionary statements (GHS-	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Clean-up procedures

Spills	Absorb spillage with inert, damp, non-combustible material. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Contain and collect extinguishing water.
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SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS

Name	CAS-No	Vol %	Chemical formula
Chlorite	14998-27-7	5%	OCl^-
Water	7732-18-5	94.97%	H_2O
NaOH	1310-73-2	0.03%	NaOH

SECTION 4: FIRST AID MEASURE

Inhalation	Remove person to fresh air and keep comfortable for breathing. Keep affected person warm and at rest. Get medical attention immediately.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention.
Skin Contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention.
Eye Contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

SECTION 5: FIRE FIGHTING MEASURES

Fire Fighting Measures

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire. Extinguish with the following media: Water spray.
Hazardous combustion	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Chlorine. Oxygen.
Hazards escape	General: Evacuate personnel upwind of the fire to avoid any risk.

Advice for fire fighter

Protective actions during firefighting	Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Contain and collect extinguishing water.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURE

Personal precautions, protective equipment and emergency procedures

Protective equipment	Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of spray mist and contact with skin and eyes. Provide adequate ventilation.
Environmental precautions	Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
Reference to other sections	Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Safe Handling Procedures

Usage precautions	Protect from freezing and direct sunlight. Store in tightly-closed, original container in a well-ventilated place. Store away from the following materials: Acids. Flammable/combustible materials. May be corrosive to metals.
Hygiene measures	Provide eyewash station and safety shower. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing and wash the skin thoroughly with soap and water after work. Eating, smoking and water fountains prohibited in immediate work area.

Conditions for safe storage, including any incompatibilities

Storage containers	Corrosive storage
Storage conditions	Store in cool and dark space in sealed container. Protect from the sunlight
Incompatible products & materials	As a general precaution, avoid mixing with strong acids, reducing agents, or ammonium containing compounds

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters

5.0% Chlorite Solution	
ACGIH	Not applicable
OSHA	Not applicable
Water	
ACGIH	Not applicable
OSHA	Not applicable

Appropriate engineering controls	None. Use under same condition as potable water
Personal protective equipment	Glove, Goggle and suitable respiratory mask
Hand protection	Wear glove
Eye protection	Wear tight-fitting, chemical splash goggles or face shield
Skin and body protection	Wear rubber apron. Wear rubber footwear.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Appearance	Homogeneous Clear yellowish
Color	Yellowish
Odor	Mild Chlorine-like
Odor threshold	No information
pH	Range 7 - 8
Melting point	Not applicable
Freezing point	No information
Boiling point	No information
Flash point	>100°C
Relative evaporation rate (butyl acetate=1)	No data available
Flammability (solid, gas)	Not flammable
Explosion limits	No data available
Explosive	None
Density	1.07~ 1.14 g/cm ³ liquid only for the OCl ⁻
Steam-pressure	Approx 2,330 Pa
Sp Gravity	1.02-1.06 g/ml
Mole Mass	None
Solubility into water	Absolutely soluble 29.3g/100ml, 0°C
Taste	No taste, like the tap water with mild chlorine smell
Concentration in water	5000 ppm FAC (5.0%)

ORP	No data available
Fire-focus	Not inflammable
Store period	About three months stored in cool space without sunlight and in a sealed container
Oxidizing properties	Oxidation potential 1.36eV.
Vapor pressure	17.5 mm Hg @ 20 C
Log Pow	No data available
Log Kow	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	1
Viscosity, dynamic	1
Viscosity, kinematic	1

SECTION 10: STABILITY AND REACTIVITY

Stability	Stable under all normal usage and storage conditions
Materials to avoid	Avoid strong acid, reducing agents
Hazardous decomposition products	None
Reactivity	No additional information available
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	May react if it mixed with strong acids and reducing agents
Conditions to avoid	Direct sun light. Extremely high or low temperatures
Incompatible material	Strong acids, reducing agents, or ammonium containing compounds.

SECTION 11: TOXICOLOGICAL INFORMATION**5.0% chlorite solution**

IARC group	4 -Probably not carcinogenic to humans
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Likely routes of exposure	Ingestion, Skin and eye contact
Acute toxicity	None
Skin corrosion/irritation	None
Serious eye damage/irritation	None
Respiratory or skin sensitization	No reference
Germ cell mutagenicity	No reference
Carcinogenicity	Not classified, No reference because it is very different from chemical ClO ⁻
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	Based on available data, the classification criteria are not met.
Symptoms/injuries after skin contact	None
Symptoms/injuries after eye contact	None

SECTION 12: ECOLOGICAL INFORMATION**5.0% chlorite solution**

LC50 fish 1	Not classified, No data available
EC50 Daphnia 1	Not classified, No data available

SECTION 13: DISPOSAL CONSIDERATION**Waste treatment methods**

Waste disposal recommendations	Dispose in a safe manner in accordance with local, state, and national regulations. Dispose of contents/container to comply with local, state and federal regulations
Ecology - waste materials regulations	No known effects

SECTION 14: TRANSPORT INFORMATION

This substance is considered to be no hazardous for transport according to IATA. Not a regulated material in accordance with Department of Transportation (DOT).

SECTION 15: REGULATORY INFORMATION

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory. This product does not contain a toxic chemical or chemicals in excess of the applicable minimal concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

SECTION 16: MEDICAL ADVICE

This product has been extensively tested in both humans and animals. It can be used for the bacteria and virus control without any harmful materials and secondary pollution.

SECTION 17: OTHER INFORMATIONS

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. It does not constitute a warranty, express or implied, as to the accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

References	: Not available.
Other Special Considerations	: Not available.
Last Updated	: 16/4/2020

EC50 other aquatic organisms 1	Not classified, No data available
LC50 fish 2	Not classified, No data available
Threshold limit algae 1	Not classified, No data available

Eco toxicity	Destroys bacteria, Spores, Viruses, and mold, algae.
Degradability and Persistence	Fully biodegradable
Bioaccumulation	None
Mobility	None
Hazards	None
Other effects	Destroys biofilm
Ecology - water	None

Persistence and degradability

5.0% chlorite solution	
Persistence and degradability	Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
Bio accumulative potential	Not bio accumulative.
Mobility in soil	No information available, disassociates into water and salt
Effect on the global warming	No known ecological damage caused by this product.
Other information	None