



## Material Safety Data Sheet

IQ GREEN SOLUTIONS (PTY) LTD

IQ DISINFECTANT SOLUTION

### Section I – Chemical product and company identification

**Product Name:** IQ DISINFECTANT SOLUTION  
**Product Description:** Electro-chemically activated solution of sodium chloride (0.9% or less)  
**CAS #:** None (Mixture)  
**Manufacturer:** IQ Green Solutions (Pty) Ltd  
**Address:** Unit12, Urban Growth Park, 15 Jan van Riebeeck Drive, Paarl, 7620  
**Phone No:** +27 (0)86 103 7222

**For information on health hazards call:** +27 (0)86 103 7222  
**For Product sales information call:** +27 (0)86 103 7222  
**24 Hour Emergency Information call:** +27 (0)86 103 7222  
**Chemtec Emergency Number:** +27 (0)86 103 7222  
**Preparation Date (or latest revision):** January 2020  
**Prepared by:** IQ Green Solutions (Pty) Ltd

### Section II – Hazards identification

**HMIS Hazard Rating:** Health = 1 Flammability = 0 Physical = 0 Reactivity = 0

0 = Minimal Hazard 1 = Slight Hazard 2 = Moderate Hazard 3 = Serious Hazard 4 = Severe Hazard

### Section III – Composition and Information on Ingredients

Main ingredients	CAS-No	EINICS-No	Wt/vol %	Symbols
Sodium Chloride	7647-14-5	231-598-3	0.26%	NaCl
Hypochlorous acid	7790-92-3	232-232-5	0.05%	HOCl
Water	7732-18-5	231-791-2	99.69%	H <sup>2</sup> O

## Section IV – First-aid measures

Under normal use conditions the likelihood of any adverse health effect is low.

**Exposure Limits:** No exposure limits established for the Product by ACGIH or OSHA.

**Skin Contact:** If any irritation occurs, wash affected area with water.

**Eye Contact:** If irritation occurs, flush eyes with water.

**Ingestion:** Drink a glass full (250ml) of water.

**Inhalation:** If breathing problems develop, move away from Product and into fresh air.

**Medical conditions generally recognized as being aggravated by exposure to Product:** NA

**Primary route(s) of exposure:** Inhalation of Product vapours or fumes is the most common route of exposure in occupational settings.

**Developmental/Reproductive Toxicity:** No conclusion has been made based on human and animal studies.

**Carcinogenicity:** No conclusion on the carcinogenicity of chlorine has been made based on the limited information available from human and animal studies. Neither the Product nor any of its constituents are listed in the latest NTP Annual Report on Carcinogens or has been found to be a potential carcinogen in the latest IARC Monograph or by OSHA.

**Cytogenecity:** Product does not possess cytogenetic activity based on the test results on chromosome induction operations in the bone marrow cells of mice.

## Section V – Fire-fighting measures

Not flammable or explosive.

## Section VI – Accidental release measures

Spills can be washed to sewer with plenty of water, or neutralized using sodium sulphite or sodium thiosulfate.

## Section VII – Handling and storage

In the area where Product is being produced there must be good ventilation. Preferably local exhaust ventilation. For those with very sensitive skin it may be advisable to wear gloves.

Store in a cool dry ventilated area in sealed plastic containers and ensure the solution is correctly labelled.

## Section VIII – Exposure controls and personal protection

No personal protective equipment is required under normal conditions. The following suggestions should be considered in case of accidental chlorine release due to acidification.

**Ventilation:** Open air or good room ventilation is normally adequate for the safe use of the Product. Avoid breathing any vapours or fumes resulting from acid ventilation.

**Respiratory Protection:** In accordance with OSHA regulations (29 CFR 1910.134 and 29 CFR 1910.1000) fogging or spraying applications may require worker respiratory protection, such as (1) NIOSH/MSHA approved air-purifying respirators, or (2) NIOSH/MSHA approved canister/cartridge facial respirators for chlorine/acid vapours.

**Eye Protection:** Although Product is designed to be safe for eyes, good manufacturing and laboratory practices recommend the use of chemical safety goggles for all applications involving chemical handling.

**Protective Clothing:** Although Product is designed to be safe for skin, good manufacturing and laboratory practice recommend that, at a minimum, rubber, neoprene, or other chemically impervious gloves be worn for all applications involving chemical handling.

## Section IX – Physical and Chemical Properties

<b>Physical State:</b>	Liquid
<b>Boiling Point (°C):</b>	100°C
<b>Melting Point/Range:</b>	NA
<b>Flash Point (°C):</b>	NA (Non-flammable)
<b>Vapour Pressure (mm Hg @ 20°):</b>	NA
<b>Vapour Density (Air = 1):</b>	ND
<b>Specific Gravity H<sub>2</sub>O = 1):</b>	1.00 – 1.06 g/ml
<b>Density:</b>	1000 kg/m <sup>3</sup>
<b>Steam pressure:</b>	2330 Pa
<b>Appearance / Colour / Odour:</b>	Clear, with a faint chlorinous/ozonous odor
<b>Evaporation Rate:</b>	Comparable to water
<b>Solubility in Water:</b>	Complete
<b>pH:</b>	5.0 – 7.0

## Section X – Stability and reactivity

**Stability:** Loses its level of available chlorine at high temperatures and when exposed to direct sunlight. Stored under prescribed conditions, the product is stable for 12 months.

**Conditions to Avoid:** Avoid accidental or uncontrolled contact of Product with acids and hydrogen peroxide.

**Hazardous Decomposition Products:** None.

**Hazardous Polymerization:** Will not occur.

## Section XI – Toxicological information

The product is classified as non-dangerous accordingly (88/279/EWG)

The Product contains 500± ppm Free Available Chlorine (FAC).

Toxicity and exposure limits to Chlorine:

TLV/TWA: 1 ppm (3 mg/cubic meter)

TLV/STEL: 3 ppm (9 mg/cubic meter)

Acute Oral LD50 in rats g/kg 0.73;

Dermal LD50 in rats g/kg 1.26 – 2.0

## Section XII – Ecological information

**Environmental stability:** No specific data is available for this product, however this product is expected to be readily biodegradable.

**Effect of Product on plant and animals:** No evidence is currently available on this product's effects on plants or animals.

**Effect of product to aquatic life:** No evidence is currently available on this product's effects on aquatic life.

## Section XIII – Disposal information

Product is ≤0.9% sodium chloride (salt) solution and <0.05% available chlorine. Some localities allow such concentrations to be sent to open storm sewers; however local environmental regulatory requirements should be followed.

## Section XIV – Transport Information

Not classified as hazardous for transport.

## Section XV – Regulatory Information

**TSCA No:** All chemicals in this Product are listed on the EPA TSCA Inventory list.

**CERCLA/SARA:** This Product has been reviewed according to the EPA "Hazard Categories" promulgated under Section 311 and 312 of SARA. It does not fall in any listed category and poses no risk of immediate (acute) health hazard, delayed (chronic) health hazard, fire hazard, or sudden release of pressure and is not reactive (see 29 CFR § 1910.1200).

**OSHA Hazard Communication Standard:** This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Clean Air Act:** NA.

**Product Label Text Hazard Information:**

- Refer to MSDS • KEEP OUT OF THE REACH OF CHILDREN

## **Disclaimer**

This Material Safety Data Sheet (MSDS) was prepared in accordance with the provisions and requirements of 29 CFR § 1910.1200(g) and discloses the physical and health hazards of all hazardous chemicals contained in the Product described in this MSDS, but unless otherwise noted, does NOT describe or disclose ALL of the chemicals/components in the Product, some of which may be Trade Secrets.

The information included in this MSDS is based on data developed or compiled by I.E.T., Inc. (IET) from open literature, independent laboratory studies, and other available scientific evidence and is believed to be accurate and complete, but IET makes no warranty with respect thereto. **Neither does**

**IQ Green Solutions make any representation or warranty, express or implied, with respect to the Product or its suitability for any purpose or use, hereby disclaiming all such warranties, including the implied warranties of merchantability and fitness for a particular purpose and the implied warranty that the Product is free of claims of third persons by way of infringement or the like.** Anyone intending to use the Product described in this MSDS should satisfy himself that the Product (1) is suitable for their particular purposes and intended uses, and (2) meets any safety and health standards applicable thereto. It is the obligation of each user of the Product described in this MSDS to determine and comply with the requirements of all statutes – local, state and federal – applicable to its use, storage and disposal.

## **Section XVI – Other information**

IQ DISINFECTANT SOLUTION was designed to be a less hazardous biocidal agent than others currently in use. The information in this document meets the European requirements for safety and health measurements. (91/155/EWG)

The information contained in this document is based on data considered to be accurate at the time of publication and is given free of charge. It is representative of typical product but batches may exhibit minor variations.

No warranty is expressed or implied concerning the accuracy of this data.

In case of doubt or for clarification IQ Green Solutions should be consulted. IQ Green Solutions is unable to anticipate all conditions under which the product may be used, and users are advised to carry out an assessment of workplace risk and carry out their own tests to determine Safety and Suitability for the process and conditions of use.

## **Symbols**

ACGIH = American Conference of Governmental Industrial

Hygienists ASTM = American Society for Testing and Materials

International CAS # = Chemical Abstracts Service Register number

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

CL = Ceiling Limit

IARC = International Agency for Research on Cancer

NIOSH = National Institute for Occupational Safety and Health Hygienists  
NA = No Applicable Information  
ND = Not Determined  
NFPA = National Fire Protection Association  
NTP = National Toxicology Program  
OSHA = Occupational Safety and Health Administration  
OSHA, TWA = Occupational Safety and Health Administration, Time Weighted  
Average  
PMCC = Pensky - Martens Closed Cup Flash Point Determination  
SARA = Superfund Amendment and Reauthorization Act of 1986  
STEL = Short Term Exposure Limit  
TCC = Tagliabue Closed Cup flash point determination  
TLV = Threshold Limit Value  
TWA = Time Weighted Average, 8 hours