

Section 1 – Identification

Product Name: Enhanced 6% Sodium

Manufacturer for: Engineered Endodontics

Active Ingredient: Sodium Hypochlorite

Information Contacts: (262)-501-0075

Family: Endo Irrigation Solutions

Product Use: Debridement and irrigation solution for root canals

Product #: Various

Section 2 – Hazards Identification

Health:

Skin Irritant – Category 1B – H314 – Causes skin corrosion

Eye Irritant – Category 1 – H318 – Causes severe eye damage

Environmental:

Very toxic to aquatic life – Category 1 – H400

Physical:

Not Applicable

Label Elements:

GHS Label Elements:

The product is classified and labeled according to the Globally Harmonized System (GHS), OSHA HCS 2012

Hazard Pictograms:



Section 3 – Composition/Information on Ingredients

Chemical Identity	CAS Numbers	EINECS#	%
Sodium Hypochlorite	7681-52-9	231-668-3	3.0 – 6.0

Section 4 – First Aid Measures

Routes of Exposure	First Aid Instructions
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Eye	Immediately flush with water for 15 minutes, holding the eyelids apart. Get medical help if discomfort persists.
Skin	Wash thoroughly with soap and water. Remove contaminated clothing. Get medical help if discomfort persists.
Ingestion	Do not induce vomiting. Rinse mouth with water. Drink large quantity of water. Consult a physician.
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Section 5 – Fire Fighting Measures

Extinguishing Media:	Carbon dioxide, dry chemical foam, alcohol-resistant foam, water.
Fire Fighting Instructions:	Exposed firefighters must wear NIOSH-approved positive pressure, self-contained breathing apparatus with full-face mask and full protective clothing.
Unusual Hazards:	Not flammable or explosive. Product does not ignite when exposed to open flame.
Combustion Products:	May produce hydrogen chloride gas and/or chlorine gas and/or sodium oxides.

Section 6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:	Remove people from danger area. Keep away from ignition sources. Wear protective clothing, eye protection, gloves and respiratory protective device. Avoid contact with eyes and skin.
Environmental Precautions:	Do not allow product to reach sewage system or any water course. Do not allow to penetrate the ground. Report releases as required by local and national authorities.
Methods and Materials for Containment and Clean-up:	Ensure adequate ventilation. Collect using an inert non-combustible absorbent material and place in appropriate containers for disposal.

Section 7 – Handling and Storage

Precautions for Safe Handling:	Ensure good ventilation/exhaustion at the workplace. Avoid contact with the eyes and skin. Avoid breathing vapors. Use suitable protective equipment when handling. Use in accordance with package instructions.
Conditions for Safe Storage:	Store in a cool, well ventilated area. Avoid excessive heat. Do not store together with incompatible substances (e.g. acids). Keep containers upright when not in use.

Section 8 – Exposure Controls / Personal Protection

Occupational Exposure Limits:

Sodium Hypochlorite	ACGIH – TLV: 0.5 ppm NIOSH – REL: 0.5 ppm OSHA – Final PELs – 1 ppm
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TLV – Threshold Limit Value (should not be exceeded at any time).

REL – Recommended Exposure Limit (should not be exceeded at any time).

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PEL – Permissible Exposure Limit (averaged over an 8-hour workshift).

Personal Protective Equipment:

General Measures:	To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.133), or European Standard EN166 be conducted before using this product.
Eye/ Face Protection:	Safety glasses / goggles or splash shields are required when handling. Ensure eye bath is on hand.
Skin Protection:	Use impermeable clothing to prevent ANY contact with this product, such as gloves, apron, boots, or whole body suit.
Respiratory Protection:	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN149. Always use a NIOSH or European Standard EN149 approved respirator when necessary.
Thermal Hazards:	Not Applicable

Section 9 – Physical and Chemical Properties

Appearance	Odor & Odor Threshold		Relative Density	Viscosity	% Volatile
Clear, Yellow Liquid	Chlorine		N/DA	N/DA	N/A
Boiling Point/ Freezing Point (°F/°C)	Decomposition Temperature	Vapor Density	Evaporation Rate	Ignition	Solubility In Water (20°C)
100/212	N/DA	N/DA	N/DA	N/A	Soluble

Flash Point (°F/°C)	Flammable Limit (vol%)	Auto-ignition Temperature (vol%)	Explosion Limits
N/A	N/A	N/A	N/A

Section 10 – Stability and Reactivity

Chemical Stability: Stable at ambient temperature	Incompatible Materials: Strong acids, Ammonia, methanol.
Hazardous Polymerization: None known	Hazardous Decomposition Products: Hydrogen chloride gas and sodium oxides can be formed under fire conditions.
Conditions to Avoid: Direct exposure to sunlight. Heat and sources of ignition.	

Section 11 – Toxicological Information

Primary irritant effect:

Skin Contact: Causes skin burns.

Eye Contact: Causes eye burns.

Inhalation: May cause respiratory tract irritation. Material is destructive to the tissue of the mucous membranes and respiratory tract.

Additional toxicological information:

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Target Organ(s): Respiratory system.

Chronic Effects: If over-exposed to solution, there will be constant irritation to eyes, nose, and throat.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Section 12 – Ecological Information

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

Section 13 – Disposal Considerations

Regulations:	Dispose in accordance with local and national environmental regulations.
Properties (Physical/Chemical) Affecting Disposal:	None known.
Waste Treatment Recommendations:	None needed for normal anticipated use.

Section 14 – Transport Information

UN Number: 3266	
UN proper shipping name: Corrosive, Liquid, Basic, Inorganic, N.O.S. (Sodium Hypochlorite Mixture)	
Hazard Class: 8	U.S. DPT Labeling Requirements: N/A
Packing Group: II	

Section 15 – Regulatory Information

US Federal Regulations

OSHA Hazards: Corrosive

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA 303 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting level established by SARA III, Section 313.

SARA 311/312 Hazards: Acute Health Hazard

Massachusetts Right to Know Components: Sodium Hypochlorite – CAS No. 7681-52-9

Pennsylvania Right to Know Components:

Water – CAS No. 7732-18-5

Sodium Hypochlorite – CAS No. 7681-52-9

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New Jersey Right to Know Components:

Water – CAS No. 7732-18-5

Sodium Hypochlorite – CAS No. 7681-52-9

California Prop. 65 Components:

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

European/International Regulations:

European Labeling in Accordance with EC Directives

Hazard Symbol(s) and Classification: "Xi" – Irritant, "C" – Corrosive, "N" – Dangerous for the environment.



EU Risk (R) and Safety (S) Phrases:

R22 – Harmful if swallowed

R31 – Contact with acids liberates toxic gas

R34 – Causes burns

R36/37/38 – Irritating to eyes, respiratory system, and skin

R41 – Risk of serious damage to eyes

R50 – Very toxic to aquatic organism

S36/37 – Wear suitable protective clothing and gloves

WHMIS (Canada):



Section 16 – Other Information

Hazard Rating System (Pictograms)

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NFPA:	HMIS:
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	0
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Abbreviations and acronyms:	
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals
HCS:	Hazard Communication Standard (USA)
SDS:	Safety Data Sheet
ECHA:	European Chemicals Agency
OSHA:	Occupational Safety and Health Administration
ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG:	International Maritime Code for Dangerous Goods
DOT:	US Department of Transportation
IATA:	International Air Transport Association
ACGIH:	American Conference of Governmental Industrial Hygienists
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
NFPA:	National Fire Protection Association
HMIS:	Hazardous Materials Identification System
VOC:	Volatile Organic Compounds
LC50:	Lethal Concentration, 50%
LD50:	Lethal Dose, 50%
PBT:	Persistent, Bioaccumulative and Toxic
vPvB:	very Persistent and very Bioaccumulative
Xi:	Irritant
T:	Toxic
F:	Highly Flammable

Date Sources:
OSHA – www.osha-goc/dts/chemicalssampling/toc/chmcas.html
TOXNET – www.toxnet.nlm.nih.gov

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ECHA – www.echa.europa.eu

EnviChem – www.echemportal.org

Prepared By:	Mark Fiorina
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