

SECTION 1: IDENTIFICATION

PRODUCT IDENTIFIER: **Sodium Perchlorate Solution**

OTHER MEANS OF IDENTIFICATION: None

RECOMMENDED USE: Laboratory reagent

RESTRICTIONS ON USE: None

SUPPLIER IDENTIFIER: **Di-Corp**
8750-53 Ave
Edmonton, AB T6E 5G2
780-440-4923

EMERGENCY PHONE NUMBER: 780-468-4064 (24 hr)

SECTION 2: HAZARD IDENTIFICATION

CLASSIFICATION: Oxidizing liquid – Category 2
Eye irritation – Category 2

LABEL SYMBOLS:



SIGNAL WORD: DANGER

CLASSIFICATION INFORMATION:

May intensify fire; oxidizer
Causes serious eye irritation

Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep away from clothing and other combustible materials.

Wash hands thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection

Response

PRECAUTIONARY STATEMENTS:

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.

In case of fire: Use CO₂, dry chemical or foam for extinction.

Storage

Store separately.

Disposal

Dispose of contents/container in accordance with local, provincial or federal regulations.

OTHER HAZARDS:

Not available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
Sodium perchlorate	7601-89-0	~70% (w/v)

SECTION 4: FIRST AID MEASURES

SKIN CONTACT:	Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Flush contaminated skin with running water for at least 5 minutes or until the chemical is removed. If irritation persists, obtain medical advice. Keep clothing wet until decontamination is possible. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
EYE CONTACT:	Immediately flush with gently flowing warm water for 15 minutes holding eyelids open. Remove contact lens, if present. When flushing period is complete, obtain medical attention.
INGESTION:	Do not induce vomiting unless directed to do so by a physician or poison control center. Rinse mouth and give 1-2 glasses of water. If vomiting occurs, keep head below hips to prevent aspiration, and re-administer water. Never give anything by mouth if victim is unconscious, rapidly losing consciousness or convulsing. Obtain medical attention.
INHALATION:	Move to fresh air. Apply oxygen or artificial respiration if required. Obtain medical attention.
MOST IMPORTANT SYMPTOMS / EFFECTS:	Eye irritant.
IMMEDIATE MEDICAL ATTENTION / SPECIAL TREATMENT:	Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:	Not flammable. Use media suitable for surrounding materials and packaging. Remove containers from fire area, or cool with water spray, if possible.
UNSUITABLE EXTINGUISHING MEDIA:	None known.
SPECIFIC FIRE HAZARDS:	Sodium perchlorate is an oxidizing agent and may cause rapid combustion or explosions if mixed with fuels, including organic materials or powdered metals. Dried product residue is an NFPA Class 2 oxidizer and may cause fire and/or explosion.
HAZARDOUS COMBUSTION PRODUCTS:	May produce chlorine, chlorine dioxide, hydrogen chloride and oxides of nitrogen.
SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS:	Full protective equipment and self-contained breathing apparatus required for fire-fighting personnel. Remove containers from fire area, or cool with water spray, if possible.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Evacuate area and eliminate ignition sources. Enter area only if wearing appropriate safety equipment. Avoid all bodily contact with spilled material. Stop leak if possible to do so without risk.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP

Soak up with non-organic absorbent material and place in suitable containers for material being disposed. Triple rinse empty containers and dispose in general trash.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Avoid skin and eye contact. Wear suitable protection for eyes and skin when handling. Avoid ingestion. Wash thoroughly after handling. Practice reasonable caution and personal cleanliness. Launder exposed clothing before reuse.

CONDITIONS FOR SAFE STORAGE & INCOMPATIBILITIES

Store in dry, well ventilated area designated for oxidizers away from ignition sources and combustible materials. Keep container tightly closed when not in use.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS:	Not available.
ENGINEERING CONTROLS:	Local exhaust ventilation, process enclosure or other engineering controls as required to maintain mist or vapour concentration below TLV's.
PERSONAL PROTECTIVE MEASURES	
RESPIRATORY PROTECTION:	Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.
PROTECTIVE GLOVES:	Rubber or neoprene recommended.
EYE PROTECTION:	Safety glasses with side shields or chemical goggles.
OTHER PROTECTIVE EQUIPMENT (SPECIFY):	Suggest the use of a chemical apron and/or chemical resistant clothing. Ensure eye-wash station and emergency shower are available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear colourless liquid
ODOUR:	Odourless
ODOUR THRESHOLD:	Not applicable
pH:	5.9
MELTING POINT / FREEZING POINT:	<-10°C
BOILING POINT / RANGE:	>100°C
FLASH POINT:	Not applicable
EVAPORATION RATE:	Not available
FLAMMABILITY:	Not flammable
FLAMMABILITY / EXPLOSIVE LIMITS:	Not applicable
VAPOUR PRESSURE:	Not available
VAPOUR DENSITY:	Not available
RELATIVE DENSITY:	1.32
SOLUBILITY:	Miscible in water
PARTITION COEFFICIENT:	Not available
AUTO-IGNITION TEMPERATURE:	Not applicable
DECOMPOSITION TEMPERATURE:	Not applicable
VISCOSITY:	Not available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:	Not reactive under normal conditions of use.
CHEMICAL STABILITY:	Stable under normal conditions of use.
POSSIBILITY OF HAZARDOUS REACTIONS:	Polymerization will not occur.
CONDITIONS TO AVOID:	Heat, sparks, open flames, contaminants which react with sodium perchlorate.
INCOMPATIBLE MATERIALS:	May ignite other combustible materials (wood, paper, oil, etc). Reaction with fuels may be violent (explosive). Can result in violent (explosive) reactions with: oils, fuels, ammonium nitrate, charcoal, calcium hydride, sulphuric acid, reducing agents and may be combustible in the presence of most organic materials. Avoid contact with reducing agents. May react with water reactive substances.
HAZARDOUS DECOMPOSITION PRODUCTS:	Not available.

SECTION 11: TOXICOLOGICAL INFORMATION

PRODUCT TOXICITY:	Not available
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COMPONENT TOXICITY

COMPONENT	LD50 ORAL	LD50 DERMAL	LC50 INHALATION
Sodium perchlorate	2100 mg/kg (rat), unconfirmed	Not available	Not available
SKIN CONTACT:	May cause irritation. Repeated or prolonged contact may cause dermatitis with redness and cracking.		
EYE CONTACT:	Hazardous in case of eye contact. Sodium perchlorate is a severe irritant in animal testing.		
INGESTION:	No adverse effects expected from incidental ingestion.		
INHALATION:	Not an expected route of exposure for normal work processes. Mist will be irritating to mucous membranes. Prolonged exposure may cause headaches, nausea, vomiting, chemical pneumonitis and pulmonary edema.		
CARCINOGENICITY:	No ingredients listed by IARC, NTP, ACGIH or OSHA.		
TERATOGENICITY:	Not toxic based on available information.		
REPRODUCTIVE TOXICITY:	Not toxic based on available information.		
MUTAGENICITY:	Not mutagenic based on available information.		
CHRONIC TOXICITY:	With chronic exposure, sufficient dose and duration, sodium perchlorate may cause thyroidal stores of iodine to be reduced which may lead to goiter and hypothyroidism. Occupational studies indicated no adverse effects on workers exposed for 3 years or more to perchlorate.		
TARGET ORGAN EFFECTS:	Thyroid.		

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:	Sodium perchlorate: LC50 = 1655 mg/L/96 hr (pimephales promelas) Sodium perchlorate: EC50 = 490 mg/L/48 hr (daphnia magna)
PERSISTENCE AND DEGRADABILITY:	Not applicable.
BIOACCUMULATIVE POTENTIAL:	Does not bioaccumulate.
MOBILITY IN SOIL:	Mobile.
OTHER ADVERSE EFFECTS:	Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose/incinerate in accordance with federal, state and local regulations. Do not dump into sewer drains, watercourses or on the soil. Offer surplus and non-recyclable material to a licensed disposal company. It is the responsibility of the end-user to determine if material meets the criteria of hazardous waste at the time of disposal. Triple rinse empty containers and dispose in general trash.

SECTION 14: TRANSPORTATION INFORMATION

TDG:	Regulated*
DOT:	Regulated
IATA:	Regulated
IMDG:	Regulated
UN NUMBER:	UN3139
PROPER SHIPPING NAME:	OXIDIZING LIQUID, N.O.S. (sodium perchlorate)
CLASS:	5.1
PACKING GROUP:	II
IMDG HAZARDS:	Not available
BULK TRANSPORT:	Not applicable
SPECIAL PRECAUTIONS:	Not available

*May be shipped as LIMITED QUANTITY under TDG in packages of 1 kg or less.

SECTION 15: REGULATORY INFORMATION

DSL:	All ingredients are listed on the DSL.
WHMIS 1988 CLASS:	C, D2B
TSCA:	All ingredients are listed or exempt from listing.

SECTION 16: OTHER INFORMATION

REVISION DATE:	October 12, 2018
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