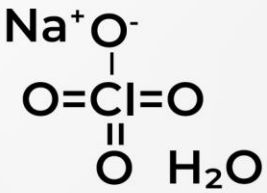
SODIUM PERCHLORATE MONOHYDRATE



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EXSYN®
ESSENTIAL CHEMISTRY

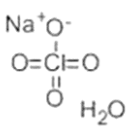
Sodium Perchlorate Monohydrate

INTRODUCTION

Sodium perchlorate monohydrate is the inorganic compound with the chemical formula NaClO4•H2O. It is the common existence form of sodium perchlorate, which can gradually absorb water in the air to form the monohydrate. Sodium perchlorate monohydrate is white rhombic crystal which is highly soluble in water and in alcohol. Its capacity to undergo redox reactions, liberating oxygen atoms, has been harnessed in the preparation of specialty chemicals, including pharmaceutical intermediates and fine chemicals.

Manufacture

Sodium perchlorate is produced by anodic oxidation of sodium chlorate ($NaClO_3$) at an inert electrode, such as platinum.

Synonym	Perchloric Acid, Sodium Salt, Monohydrate; Hyperchloric acid sodium salt, monohydrate
CAS no.	7791-07-3
EINECS no.	231-511-9
Molecular formula	NaClO4.H2O
Molecular weight	140.44
Structure	

Applications

Research / Laboratory:

- Chaotropic agent used in DNA extraction and hybridization; also, as a deproteinization agent during nucleic acid synthesis.
- Used in Ion chromatography as an eluent for the separation and quantification of anionic constituents

Medicinal :

- Competitive inhibitor of iodine uptake in the thyroid to protect from radiation or to diagnose congenital thyroid disorders.

Industrial :

- In Production of improved quality of Ca-Zn stabilizers in PVC, additive in rubber and plastics.
- As a supporting electrolyte in the preparation of polypyrrole (PPy) film.
- As an oxidizing agent to remove colour from the textile's wastewater.
- As a precursor for the synthesis of high-energy-density materials, such as solid rocket propellants and pyrotechnic compositions
- It also finds use as a material to train canines to detect bomb materials.

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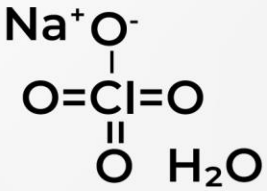

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SPECIFICATIONS

Test	Unit	Specifications
Appearance	-	White deliquescent crystals
Assay (As NaClO4.H2O)	%	Min 99.0
NaClO4 Content	%	Min 86.3
Chlorate (As $ClO3^{-}$)	%	Max 0.15
Chloride (As Cl)	%	Max 0.05
Sulphate (As SO4)*	%	Max 0.05
Insolubles*	%	Max 0.05

* Tests are reported as per validated test plan.

STORAGE
Store in closed containers away from heat and moisture.

PACKING
125 kg OR 150 kg HPDE drums / 200 kg steel drums / 25 kg nett HDPE bags

CERTIFICATIONS
ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 & ISO 27001:2018

REACH Status
Registered

No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.