

## SPECIFICATIONS OF MONOCHLOROACETIC ACID (MCA)

1	PRODUCT		MONO CHLORO ACETIC ACID
2	Molecular Formula		C <sub>2</sub> H <sub>3</sub> ClO <sub>2</sub>
3	Molecular Weight		94.50
4	CAS Reg No		79-11-8
5	Appearance		A White Crystalline powder with pungent smell
6	Solubility		Soluble in water
7	Specifications		
	TEST		Testing Method
	% Assay	Min. 99.0% w/w	GC
	% Dichloro Acetic Acid	Max. 00.50% w/w	GC
	% Moisture (If Required)	Max 00.50% w/w	Karl Fischer
	Acetic Acid	Max 00.25%	GC
	Iron content (as Fe) (If Required)	Max. 10 ppm	AAS
	Heavy Metal (as Pb) (If Required)	Max. 10 ppm	AAS
8	UN No 1751		
9	IMCO Class		6.1(8)
10	<p>Uses :</p> <p>Intermediate of carboxymethylcellulose and -starch as thickening agent for detergents, oil drilling, paper, food and pharma applications; Production of agrochemicals like herbicides (e.g. 2,4-D and MCPA) or insecticides e.g. (dimethoates); Raw material for betaine production (personal care); Manufacturing of thioglycolic acid for UV-light stabilizers in PVC and thioglycolic acid ester as additives in cosmetics; Further applications: vitamins, synthetic caffeine, malonates, glycine.</p>		
11	Packing	25/50 Kg HDPE Bags with Liner, 25 Kg Paper Bag with Liner, 1050/1100 Kg FIBC Jumbo Bags.	
12	Storage	Store in a close Ventilated & shaded area.	
13	Precaution	Avoid contact with skin and eyes.	
14	<p>Note</p> <p>The information given in this Data Sheet is based on the present state of our knowledge. Any conclusions and recommendations made are without liability on our part. Buyers and Users should make their own assessment of our product under their own conditions and for their own requirements.</p>		

APPLICATIONS	
End Products	Uses
Carboxy Methyl Cellulose (CMC) Polyanionic Cellulose (PAC)	Thickening agent for food, oil, mining, personal care products, detergents, adhesives
2,4-D (phenoxyacetic), Dimethoate, Glyphosate, 2-Methyl-4-Chlorophenoxy-acetic acid (MCPA)	Crop protection Chemicals
Thioglycolates	Thermo Stabilizers for PVC, Hair care and other cosmetics
Carboxymethyl Starch, Cynoacetic acid (incl, Esters) Malonates	Adhesives
Betaines, Imidazolines, Ethercarboxylic acids, EDTA	Surfactants, Sequestering agents
Chloro acetyl chloride (CAC), Glycine, Phenoxyacetic acid	Pharmaceuticals
Cynoacetic acid (Caffeine)	Food Products

## QUALITY ASSURANCE

We have a state of the art facilities for Chemical and analytical testing. Control samples are maintained in closed containers. All shipments are comprehensively tested and inspected before dispatch.

Following Quality tests are performed on MCA raw materials and finished product:

Acetic Acid Purity	Chemical Analysis & Freezing Point Methods As per International Standards Reported. Formic Acid & Acetaldehyde Also Tested As Per International Standards Reported.
Chlorine	Supplier Test Methods. Validated in Own Labs
MCAA Purity Test	Gas Chromatography (GC)
Set Point Test	Chemical Analysis
Moisture Estimation	Karl Fischer Test (KF)
Heavy Metal	Testing by Atomic Absorption Spectrophotometry (AAS)