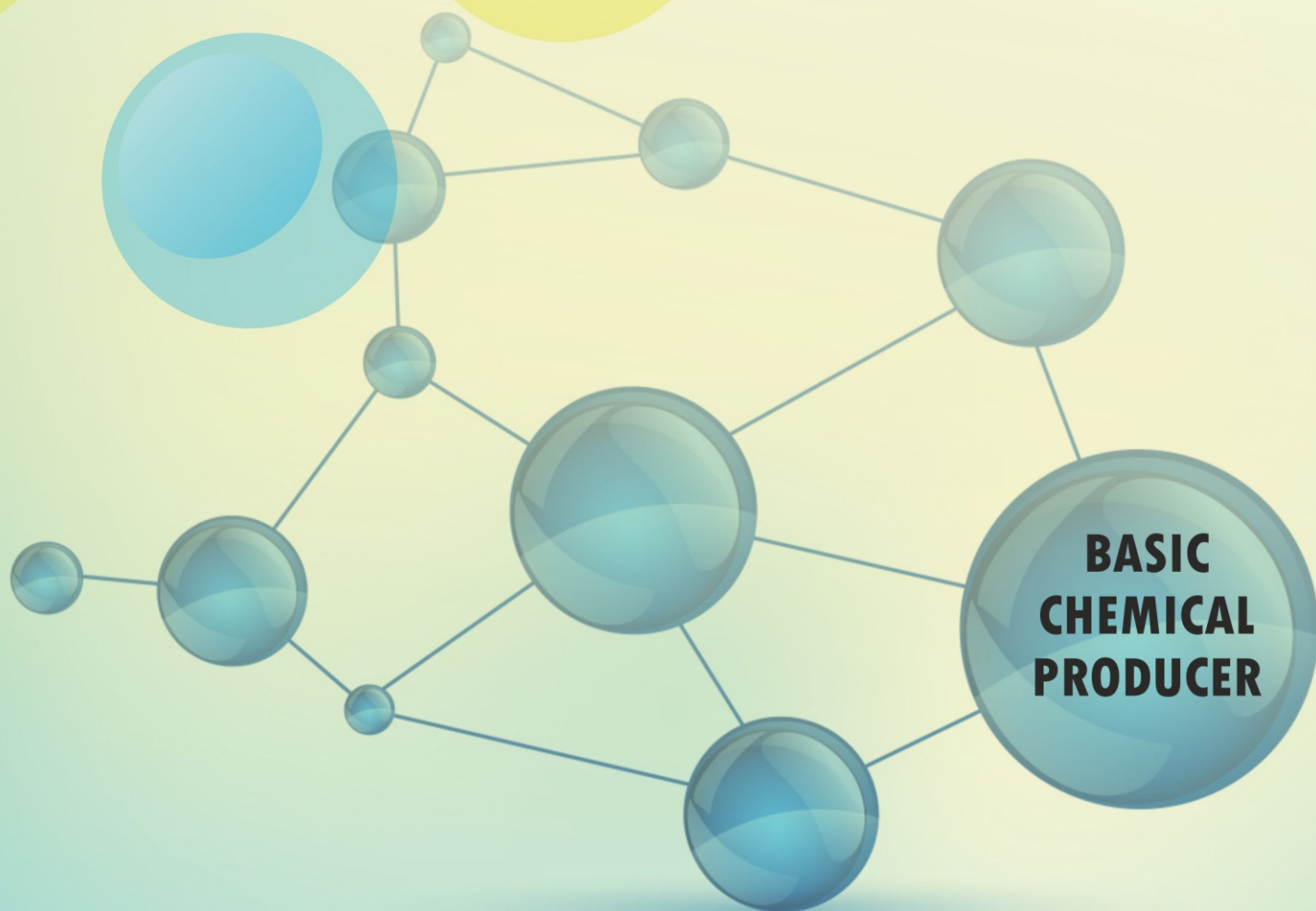


**anugrah**  
IN-ORG (P) LIMITED

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## **MANUFACTURER OF CHLORINATED CHEMICALS....**





# Monochloroacetic Acid (MCAA) Sodium Monochloro Acetate (SMCA)

## ANUGRAH GLIMPSE



ANUGRAH In-Org (P) Ltd. is engaged in the manufacturing of chlorinated chemical products and is promoted by qualified and experienced professionals.

ANUGRAH In-Org (P) Ltd. is a responsive organization involved in the manufacturing of various chlorinated chemical intermediates; it is the brainchild of qualified and experienced professionals whose constant endeavor is to develop breakthrough products in conjunction with the best kind of customer services.

Chlorinated products manufactured by ANUGRAH finds applications in major segments of chemical industry viz, organic chemicals, agro chemical, pharmaceuticals and specialty chemicals. Chlorinated products which are the integral components of agro chemicals and pharmaceutical products are our specialty since we have technological expertise in the particular chemistry.

ANUGRAH was set up in the year 2001 to manufacture Monochloroacetic Acid (MCAA) with commercial production capacity of 1000MTPA. Growing customer base in small span forced us to increase our capacities. Rigorous dedicated R & D brought about improved process modifications leading to an unprecedented increase in the capacity to 6000MTPA, with state of the art, eco friendly technology.

[ANUGRAH with the assistance of in-house R & D and engineering saw the optimum capacity utilisation of 6000 TPA.]

Success is the biggest motivation and this technological breakthrough triggered the drive for new product development. Our continued R & D first developed process expertise in the sodium salt of MCAA (SMCA). The subsequent process development for esters of MCAA (Methyl & Isopropyl) was also achieved.

## GLOBAL PRESENCE

Globalization of the Indian economy has led to the development of Global village and consequently a global market. ANUGRAH has stood up to the global market standards and has constantly evolved and progressed to match the international competitions. Exports to United Kingdom, European Nations, CIS Countries, Latin America Contribute to 60% of our total sales.

Our qualified and experienced marketing personnel provides value added services to serve our valued customer with right products at a right price, assured quality and timely delivery. Thus, eliminating risk of glitches faced by our esteemed customers.

## QUALITY STATEMENT

ANUGRAH has always accentuate on the Quality Assurance and control which achieved us the milestone of ISO 9001-2008 accreditation by TUV Rheinland in 2009 – 10 and now practicing the same quality standards





## Monochloroacetic Acid (MCAA) (CAS#79-11-8)

## & Sodium Salt of MCAA (SMCA) (CAS#3926-62-3)

ANUGRAH is one of the India's key player in MCAA, which is produced at its facility at Vadodara, India. MCAA plant at Vadodara follows international manufacturing standards and is well equipped with the latest scientific instruments for quality control and assurance. ANUGRAH is recognised as a reliable MCAA producer with the required focus on safety and superior logistics.



MCAA crystals are hygroscopic crystalline substance with a characteristic pungent odour and classified as Hazardous, Toxic and Corrosive.

SMCA is a white hygroscopic powder and is also classified as Hazardous and Toxic.

### Applications

MCAA and SMCA is used directly or indirectly as an important intermediate to produce

End Product	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:

ANUGRAH has 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 MCAA 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)



## Monochloroacetic Acid (MCA)

### Specifications of Monochloroacetic Acid (MCAA)

**Product :** Monochloroacetic Acid

**CAS Reg. No. :** 79-11-8

**Appearance :** White Deliquescent Crystals

**Specifications**

Item		Testing Method
Monochloroacetic Acid (NLT)	99.25%	GC
Dichloroacetic Acid (NMT)	00.50%	GC
Acetic Acid (NMT)	00.25%	GC
Moisture (NMT)	00.50%	Karl Fischer
Iron (NMT)	10 ppm	AAS
Heavy Metal (as Pb) (NMT)	10 ppm	AAS

**UN No. :** 1751

**IMCO Class :** 6.1 (8)

**Uses :** Monochloroacetic Acid is used as a versatile intermediate in the manufacturing of various Agrochemicals viz 2, 4-D, Glyphosate etc. It is widely used as a main raw material for various pharmaceuticals viz. Ibuprofen, Dichlofenac, etc. & in the manufacturing of Carboxy Methyl Cellulose.

**Packing :** 25/50 Kgs Net HDPE Bags with Liner inside 500/1050 Kgs. PP FIBC Jumbo Bags

**Storage :** Store in a close Ventilated & shaded area.

**Precaution :** Avoid contact with skin and eyes.



## Sodium Monochloro Acetate (SMCA)

### Specifications of Sodium Monochloro Acetate (SMCA)

**Product :** Sodium Salt of Monochloroacetic Acid

**CAS Reg. No. :** 3926-62-3

**Appearance :** White free flowing powder

**Specifications**

Item	
SMCA Purity (On dry basis)	98% Min
Sodium Chloride	1% Max
Sodium Dichloro Acetate	0.5% Max
Sodium Glycolate	0.3% Max
Free Monochloroacetic	0.2% Max
Moisture	2.0% Max
pH of 5% solution	6 to 8

**Packing :** 25/50 Kgs Net HDPE Bags with Liner inside 500/1050 Kgs. PP FIBC Jumbo Bag

**Storage :** Store in a close Ventilated & shaded area

**Precaution :** Avoid contact with skin and eyes.








## Trichloroacetic Acid (TCAA)

### Specifications of Trichloroacetic Acid (TCAA)

**Product :** Trichloroacetic Acid  
**Structural :**   
**CAS Reg. No. :** 76-03-09  
**Molecular Formula:** C<sub>2</sub>HCl<sub>3</sub>O<sub>2</sub>  
**Molecular Weight :** 163.4  
**Description:** White Deliquescent Crystals  
**Specifications**

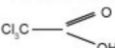
Item		Testing Method
Trichloroacetic Acid (NLT)	98.00%	GC
Monochloroacetic Acid (NMT)	01.00%	GC
Dichloroacetic Acid (NMT)	01.00%	GC
Moisture (NMT)	00.50%	Karl Fischer
Iron (NMT)	10 ppm	AAS
Heavy Metal (as Pb) (NMT)	10 ppm	AAS



**UN No. :** 1839  
**IMCO Class :** 8  
**Uses :** Used as an intermediate in Pharmaceuticals, Textile Auxiliaries and manufactures of Esters  
**Packing :** 30/60 Kgs net HM HDPE Carboys  
**Storage :** Store in a close Ventilated & shaded area  
**Precaution :** Avoid contact with skin and eyes.

## Monochloroacetic Acid Aqueous Solution

### Specifications of Monochloroacetic Acid Aqueous Solution

**Product :** Monochloroacetic Acid, technical pure, 80% aqueous solution  
**Structural :**   
**CAS Reg. No. :** 76-11-8  
**Molecular Weight :** 94.5  
**Description:** Clear Colourless Liquid

#### Specifications

Item		Testing Method
Monochloroacetic Acid (NLT)	99.25%	GC
Dichloroacetic Acid (NMT)	00.50%	GC
Acetic Acid (NMT)	00.25%	GC
Total Acid Content (w/w)	79-80%	Titration
Water content (w/w)	21%Max	Karl Fischer
Iron (NMT)	10 ppm	AAS
Heavy Metal (as Pb) (NMT)	10 ppm	AAS



**IMCO :** Class1750  
**IMCO Class :** 8  
**Uses :** Used as an intermediate in Pharmaceuticals, Textile Auxiliaries and manufactures of Esters & Carboxy Methyl Cellulose  
**Packing :** 250 Kg HM HDPE Barrel or ISO Tanks  
**Storage :** Store in a close Ventilated & shaded area  
**Precaution :** Avoid contact with skin and eyes.



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## Contact Us

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