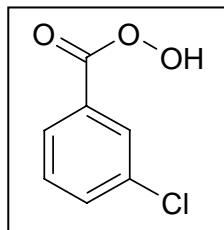


Product Information:	Product:	3-Chloroperoxybenzoic acid, 70-75%
	Synonym:	m-Chloroperbenzoic acid; m-CPBA; MCPBA
	Acros code number:	25579-0000
	CAS number:	937-14-4
	EINECS number:	213-322-3
	TSCA:	listed
	MDL code number:	MFCD00002127
	Structure:	



Molecular formula:	$C_7H_5ClO_3$
Molecular weight:	172.57 g/mol

Specifications:	Appearance:	White moist powder
	Assay Iodometry:	70 to 75%
	3-Chlorobenzoic acid:	≤12%
	Water:	(K.F.) balance
	Separat. Techn. HPLC:	≤0.2% Di-m-chlorobenzoyl peroxide ≤0.1% sec-Butanol

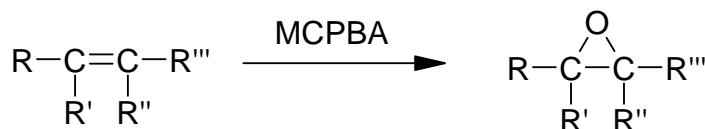
Typical Properties:	Odor:	slight pungent odor
	Melting point:	92-94 °C
	SADT:	55 °C (Self-Accelerating Decomposition Temp.)
	Decomposition:	>88 °C
	Major decomposition products:	3-Chlorobenzoic acid, Water
	Bulk density:	0.56 g/cm ³
	pH saturated aq. sol.:	4.5 @ 25 °C
	pKa:	7.57 (in water @ 25 °C)
	Solubility ^{Fieser 1,136} :	
	Water:	0.154 g/100 ml
	Hexane:	1.4 g/100 ml
	CCl ₄ :	2.1 g/100 ml
	Benzene:	8.0 g/100 ml
	Chloroform:	9.8 g/100 ml
	CH ₂ Cl ₂ :	11.2 g/100 ml
	Ethyl acetate:	51.0 g/100 ml
	<i>tert</i> -Butanol:	69.0 g/100 ml
	Diethyl ether:	89.4 g/100 ml
	Ethanol:	113.0 g/100 ml

General Information: 3-Chloroperoxybenzoic acid (MCPBA) is one of the most popular oxidation reagent in organic synthesis, because of its outstanding performance in terms of:

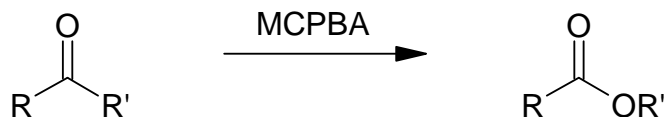
- reactivity, combined with reducing the number of reaction steps in classical synthetic routes,
- regio- and stereoselectivity,
- protection of functional groups mostly not required,
- high purity and yields.

Its literature covers a huge area of different syntheses and below reaction equations just can be a brief overview of its interesting applications:

1. Epoxidation^{1,2,3,4,5,6}:



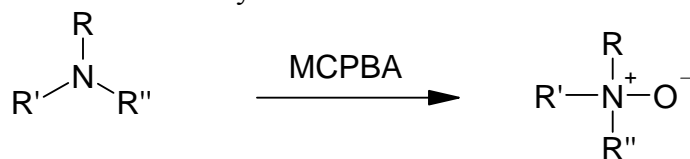
2. Baeyer-Villiger Oxidation^{7,8,9}:



3. Synthesis of Sulfoxides & Sulfones^{10,11,12,13}:



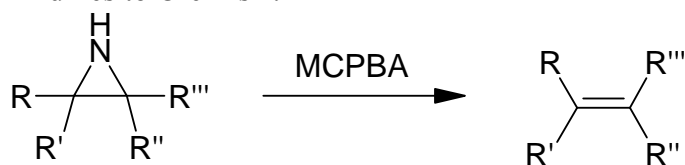
4. Synthesis of N-Oxides with tertiary amines^{14,15,16}:



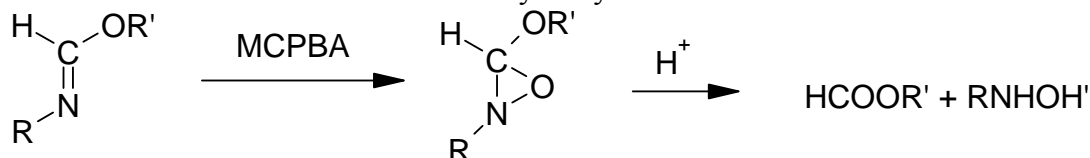
5. Synthesis of Nitro compounds with prim. Amines¹⁷:



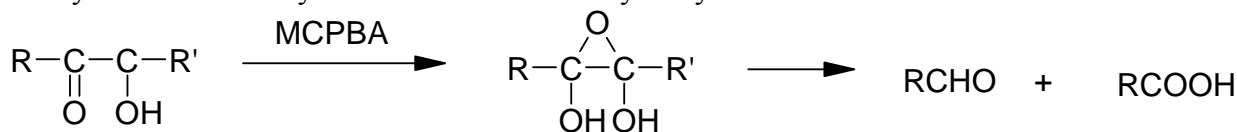
6. Conversion of Aziridines to Olefins¹⁸:



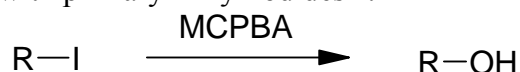
7. Oxidation of Imino ethers to esters and hydroxylamines¹⁹:



8. Synthesis of Aldehydes and Acids with α -Hydroxy ketones²⁰:



9. Synthesis of Alcohols with primary Alkyl iodides²¹:



Handling and Storage: Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Do not breathe vapor/dust. Do not ingest. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials. Keep refrigerated (@ approx. +2 to +8 °C). Organic peroxides.

Material Safety Data Sheet: A **Material Safety Data Sheet (MSDS)** according to EU guideline 91/155/EWG can be downloaded from our website <http://www.acros.com>

Packaging: Bulk: 25 kg HDPE plastic drum. Prepack: HDPE plastic containers in: 25g, 100g, 500g, and 1kg.



Transport regulations:

UN-Number:	3106
ADR:	Hazard Class: 5.2 Packaging Group: II
IMDG:	Hazard Class: 5.2 Packaging Group: II
IATA:	Hazard Class: 5.2 Packaging Group: II

Literature: Fieser: **1**, 135; **2**, 68; **3**, 49; **4**, 85; **5**, 120; **6**, 110; **7**, 62; **8**, 97; **9**, 108; **10**, 92; **11**, 122; **12**, 118; **13**, 76; **15**, 86; **16**, 80; **17**, 76.

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Note:

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