

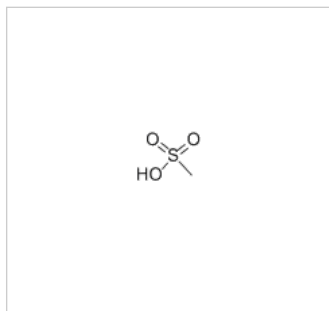
Methanesulfonic acid

Structure Search

[ChemicalBook](#) >> [CAS DataBase List](#) >> Methanesulfonic acid

Methanesulfonic acid

[Methanesulfonate electroplating solution](#) [Chemical properties](#) [Uses](#) [Production method](#) [Category](#) [Toxicity classification](#)
[Acute toxicity](#) [Flammability and Hazardous properties](#) [Storage and transportation characteristics](#) [Fire extinguishing agent](#)

[Methanesulfonic acid structure](#)

CAS No. [75-75-2](#)
Chemical Name: Methanesulfonic acid
Synonyms: MSA;MsOH;TDH2A;MeSO3H;MCA
T 1201;Mesic
acid;LutropurMSA;SULFOMETHAN
E;Sulphonethane;Methansulfonsure
CBNumber: CB3433704
Molecular Formula: CH4O3S
Formula Weight: 96.11
MOL File: [75-75-2.mol](#)

[Request For Quotation](#)[Properties](#)[Safety](#)[Price](#) 30[Uses](#)[Suppliers](#) 329[Spectrum](#)

Methanesulfonic acid Properties

Melting point:	19 °C
Boiling point:	167 °C10 mm Hg(lit.)
Density	1.481 g/mL at 25 °C(lit.)
vapor density	3.3 (vs air)
vapor pressure	1 mm Hg (20 °C)
refractive index	<i>n</i> _{20/D} 1.429(lit.)
Flash point:	>230 °F
storage temp.	2-8°C
solubility	water: soluble1,000 g/L at 20°C
pka	-2.6(at 25°C)
form	Solution
color	brown
Specific Gravity	1.48 (18/4°C)
Water Solubility	Miscible with water. Slightly miscible with benzene and toluene. Immiscible with paraffins.
λ _{max}	λ: 240-320 nm A _{max} : <0.4
Sensitive	Light Sensitive & Hygroscopic
Merck	14,5954
BRN	1446024
Stability:	Stable. Moisture sensitive. Incompatible with amines, bases, water, common metals. Releases a substantial amount of heat when diluted with water (add acid to water with care if diluting).
InChIKey	AFVFQIVMOAPDHO-UHFFFAOYSA-N
CAS DataBase Reference	75-75-2(CAS DataBase Reference)
NIST Chemistry Reference	CH3SO3H(75-75-2)
EPA Substance Registry System	Methanesulfonic acid(75-75-2)

SAFETY	Risk and Safety Statements	Hazard and Precautionary Statements (GHS)					
Symbol(GHS):							
Signal word:	Danger						
Hazard statements:	Code	Hazard statements	Hazard class	Category	Signal word	Pictogram	P-Codes
	H290	May be corrosive to metals	Corrosive to Metals	Category 1	Warning		P234, P390, P404
	H302	Harmful if swallowed	Acute toxicity,oral	Category 4	Warning		P264, P270, P301+P312, P330, P501
	H314	Causes severe skin burns and eye damage	Skin corrosion/irritation	Category 1A, B, C	Danger		P260,P264, P280, P301+P330+P331,P303+P361+P353, P363, P304+P340,P310, P321, P305+P351+P338, P405,P501
	H318	Causes serious eye damage	Serious eye damage/eye irritation	Category 1	Danger		P280, P305+P351+P338, P310
	H335	May cause respiratory irritation	Specific target organ toxicity, single exposure;Respiratory tract irritation	Category 3	Warning		

Precautionary statements:	P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P405 Store locked up.

Methanesulfonic acid price [More Price\(30\)](#)

Manufacturer	Product number	Product description	CAS number	Packaging	Price	Updated	Buy
Sigma-Aldrich	471348	Methanesulfonic acid solution 70 wt. % in H ₂ O	75-75-2	1l	\$70.1	2018-11-13	Buy
Sigma-Aldrich	11317	Methanesulfonic acid PharmaGrade, Manufactured under appropriate GMP controls for pharma or biopharmaceutical production	75-75-2	1kg	\$3892	2018-11-13	Buy
TCI Chemical	M0093	Methanesulfonic Acid >99.0%(T)	75-75-2	25g	\$16	2018-11-22	Buy
TCI Chemical	M0093	Methanesulfonic Acid >99.0%(T)	75-75-2	500g	\$70	2018-11-22	Buy
Alfa Aesar	A13565	Methanesulfonic acid, 98+%	75-75-2	100g	\$25	2018-11-13	Buy

Methanesulfonic acid Chemical Properties,Uses,Production

Methanesulfonate electroplating solution

Methanesulfonic acid is a caustic chemical, briefly referred to as MSA. It has broad application prospect in the field of electroplating and has proved to be an excellent alternative of fluoride boric acid or phenolsulfonic acid.

Methanesulfonate electroplating solution has been applied to tin and tin-lead alloy plating, the product features are as follows:

1. The bright pure tin electroplating of the methanesulfonic acid type with the coating crystal being meticulous, even and exhibiting bright silver-white. It has excellent weldability, being suitable in the electronics profession.
2. The plating solution has a high plating rate, a wide range of current density, faster deposition rate, and excellent deep plating capacity.
3. After the standard aging test or long-term storage, it can still maintain good welding performance.
4. It contains no fluorine boric acid with easy wastewater treatment, low corrosion, being environmentally friendly.

Chemical properties

It appears as colorless or slightly brown oily liquid, appearing as solid at low temperatures. It has a melting temperature of 20 °C, the boiling point of 167 °C (13.33 kPa), 122 °C (0.133 kPa), the relative density of 1.4812 (18 °C) and refractive index 1.4317 (16 °C). It is soluble in water, alcohol and ether, insoluble in alkanes, benzene and toluene. It will not subject to decomposition in boiling water and hot alkaline solution. It also has strong corrosion effect against the metal iron, copper and lead.

Uses

Methanesulfonic acid is a raw material for medicine and pesticide. It can also be used as dehydrating agent, curing accelerator for coating, treating agent for fiber, solvent, catalysis, and esterification as well as polymerization reaction.

It can be used as solvent, alkylation, catalyst of esterification and polymerization, also used in medicine and electroplating industry. It can also be applied to oxidation.

Production method

It can be obtained through the nitrate oxidation of thiocyanate methyl. Nitric acid and negative water are heated carefully to 80-88 °C with fractional addition of methyl thiocyanate and the temperature being automatically rose to about 105 °C. After the reaction becomes mild, the reaction was heated to 120 °C and reacted for 5 hours to obtain a crude product. The crude product was diluted with exchanged water and adjusted to pH 8-9 by addition of 25% barium hydroxide solution and filtered. The filtrate is condensed to until crystalline precipitation. The crystal is washed by methanol to remove the nitrate to obtain the barium methanesulfonate. It is then added to the exchanged water to boiling, add sulfuric acid for decomposition while it is hot, filter and the filtrate was concentrated under vacuum to no water to obtain the finished product.

Another method is that the methyl isothiurea sulfate is successively subject to chlorination, oxidation and hydrolysis to derive the finished product. Methyl isothiurea sulfate was added to the water; and the chlorine is sent into at 20-25 °C to until phenomenon such as solution color is turned into yellow; oil layer emerges in the bottom of the bottle; the temperature drop and large number of residual chlorine is discharged from the exhaust pipe; this indicates the end point of the reaction. The reaction solution was extracted with chloroform. After drying, the extract was distilled at 60-62 °C under normal pressure to remove the chloroform, and then further subject to distillation under reduced pressure. Collect the 60-65 °C (2.67 kPa) fraction was to obtain the methanesulfonyl chloride. Add the base drop wise under stirring to 80 °C hot water and maintain the heat hydrolysis for about 2h, to until the reaction liquid droplets completely disappear. The reaction solution was concentrated under reduced pressure to a syrupy form, diluted with water, and concentrated under reduced pressure to until no more water was distilled off to obtain methanesulfonic acid.

Category

Corrosive items

Toxicity classification

highly toxic

Acute toxicity

Oral-rat LDLO: 200 mg/kg

Flammability and Hazardous properties

Flammable with thermal decomposition of toxic formaldehyde and sulfur dioxide smoke

Storage and transportation characteristics

Treasury: ventilated, low-temperature, dry; store it separately from oxidants and alkali.

Fire extinguishing agent

sand, foam, mist water

Chemical Properties

colourless or light yellow liquid

Uses

Polymerization catalyst.

Definition

ChEBI: An alkanesulfonic acid in which the alkyl group directly linked to the sulfo functionality is methyl.

Hazard

Toxic by ingestion, skin irritant, corrosiveto tissue.

Safety Profile

Poison by ingestion and intraperitoneal routes. May be corrosive to skin, eyes, and mucous membranes. Explosive reaction with ethyl vinyl ether. Incompatible with hydrogen fluoride. When heated to decomposition it emits toxic fumes of SOx. See also SULFONATES.

Purification Methods

Dry the acid, either by azeotropic removal of water with *benzene or toluene, or by stirring 20g of P2O5 with 500mL of the acid at 100o for 0.5hours. Then distil it under vacuum and fractionally crystallise it by partial freezing. Sulfuric acid, if present, can be removed by prior addition of Ba(OH)2 to a dilute solution, filtering off the BaSO4 and concentrating under reduced pressure; and is sufficiently pure for most applications. [Beilstein 4 IV 10.]

Methanesulfonic acid Preparation Products And Raw materials

Raw materials

[ANION STANDARD - NITRATE](#) | [Barium hydroxide](#) | [Methanesulfonyl chloride](#) | [2-Methyl-2-thiopseudourea sulfate](#) | [Syrup. NF](#) | [Dimethyl disulfide](#) | [Methyl thiocyanate](#)

Preparation Products

[3-Aminobenzamide](#) | [Methanesulfonic anhydride](#) | [TROVAFLOXACIN](#) | [Pefloxacin](#) | [Pazufloxacin](#) | [\(S\)-\(-\)-7,7'-BIS\[DI\(3,5-DIMETHYLPHENYL\)PHOSPHINO\]-2,2',3,3'-TETRAHYDRO-1,1'-SPIROBIINDANE](#) | [5-Methoxy-3-indazolecarboxylic acid](#) | [1,1'-SPIROBIINDANE-7,7'-DIOL](#) | [Coumarin 314T](#) | [Fluconazole](#) | [Pergolide](#) | [Gabexate mesylate](#) | [\(11AR\)-\(+\)-10,11,12,13-TETRAHYDRODIINDENO\[7,1-DE:1',7'-FG\]\[1,3,2\]DIOXAPHOSPHOCIN-5-BIS\(R\)-1PHENYLETHYL\)AMINE](#) | [Sodium dodecylbenzenesulphonate](#) | [ETHYL 4-FORMYL-2,5-DIMETHYL-1-\(2-THIENYLMETHYL\)-1H-PYRROLE-3-CARBOXYLATE](#) | [Sodium trifluoromethanesulfonate](#) | [Phentolamine mesilate](#) | [Methanesulfonyl chloride](#) | [10-\(2-Benzothiazolyl\)-2,3,6,7-tetrahydro-1,1,7,7-tetramethyl-1H,5H,11H-\(1\)benzopyrroprano\(6,7-8-l,j\)quinolizin-11-one](#) | [SAPERCONAZOLE](#) | [\(11AR\)-\(+\)-10,11,12,13-TETRAHYDRODIINDENO\[7,1-DE:1',7'-FG\]\[1,3,2\]DIOXAPHOSPHOCIN-5-PHENOXY](#) | [9-Formyl-8-hydroxy-1,1,7,7-tetramethyljulolidine](#) | [5-Methoxyisatin](#) | [Dicofol](#) | [Etofenprox](#) | [LIMAPROST](#) | [\(11AR\)-\(+\)-10,11,12,13-TETRAHYDRODIINDENO\[7,1-DE:1',7'-FG\]\[1,3,2\]DIOXAPHOSPHOCIN-5-DIMETHYLAMINE](#) | [\(R\)-7,7'-BIS\(DIPHENYLPHOSPHINO\)-1,1'-SPIROBIINDANE](#) | [\(S\)-1,1'-SPIROBIINDANE-7,7'-DIOL](#)

Methanesulfonic acid Suppliers

Global (329)Suppliers Belgium 1

Supplier	Tel	Fax	Email	Country	ProdList	Advantage
fei TNJ Chemical Industry Co.,Ltd.	86-0551-65418684 18949823763	86-0551-65418684	info@tnjchem.com	China	1750	55
Capot Chemical Co.,Ltd.	+86 (0)571-855 867 18	+86 (0)571-858 647 95	sales@capotchem.com	China	19918	60
enzhen Sendi Biotechnology Co.Ltd.	0755-23311925 18102838259	0755-23311925	Abel@chembj.com	CHINA	3203	55
lenan DaKen Chemical CO.,LTD.	+86-371-55531817		info@dakenchem.com	CHINA	21939	58

Henan Tianfu Chemical Co.,Ltd.	0371-55170693	0371-55170693	info@tianfuchem.com	CHINA	20680	55
Shanghai Time Chemicals CO., Ltd.	+86-021-57951555	+86-021-57951555	jack.li@time-chemicals.com	CHINA	1367	55
Mainchem Co., Ltd.	+86-0592-6210733	+86-0592-6210733	sales@mainchem.com	CHINA	32457	55
Xiamen AmoyChem Co., Ltd	+86 (0)592-605 1114		sales@amoychem.com	CHINA	6374	58
Nancheng Green Chemicals Co.,Ltd	86-515-87883661	86-515-87883652	sales@greenchem-china.com	CHINA	349	58
career henan chemical co	+86-371-86658258		sales@coreychem.com	CHINA	20517	58

View Latest Price from Methanesulfonic acid manufacturers

Image	Release date	Product	Price	Min. Order	Purity	Supply Ability	Manufacturer	
	2019-04-02	Methanesulfonic acid Manufacturer; In stock GMP Factory 75-75-2	US \$1.00 / KG	1KG	High quality manufacturer	TOP 3 largest production factory in China	Chemwill Asia Co., Ltd.	Inquiry
	2019-05-23	Methanesulfonic acid 75-75-2	US \$1.00 / g	1g	99%	500 Metric Tons	Cangzhou Wanyou New Material Technology Co.,Ltd	Inquiry
	2018-08-06	Methanesulfonic acid 75-75-2	US \$1.00 / KG	1KG	98%	1	career henan chemical co	Inquiry

Methanesulfonic acid Spectrum

[Methanesulfonic acid\(75-75-2\)IR1](#)

75-75-2(Methanesulfonic acid)Related Search:

[methanesulfonic acid, caesium salt](#) ∴ [Diphenyl iodonium salt with 7,7-dimethyl-2-oxobicyclo\[2.2.1\]heptane-1-methanesulfonic acid\(1:1\)](#) ∴ [\(7,7-dimethyl-2-oxobicyclo\[2.2.1\]hept-1-yl\)methanesulfonic acid](#) ∴ [P-NITROBENZENE METHANESULFONIC ACID FORMAMIDE](#) ∴ [N-\(diaminomethylidene\)-3-methylsulfonyl-4-propan-2-ylbenzamide methanesulfonic acid](#) ∴ [5-Mercapto-1H-tetrazole-1-methanesulfonic acid disodium salt](#) ∴ [Colimycin sodium methanesulfonate, Methanesulfonic acid derivative of Polymyxin E, Polymyxin E sodium methanesulfonate](#) ∴ [Thio-methanesulfonic Acid S,S'-\(Methylimino\)diethylene Ester](#) ∴ [Sodium formaldehyde bisulfite](#) ∴ [phosphoric acid](#) ∴ [Methanesulfonic acid](#) ∴ [Ascoric Acid](#) ∴ [Ethyl 2-\(Chlorosulfonyl\)acetate](#) ∴ [Trifluoromethanesulfonic acid](#) ∴ [Citric acid](#) ∴ [Trifluoromethanesulfonic anhydride](#) ∴ [Glycine](#) ∴ [Stearic acid](#)

[SULFOMETHANE](#) ∴ [MSA](#) ∴ [acidemethanesulfonique](#) ∴ [Kyselina methansulfonova](#) ∴ [Methanesulfonic acid Manufacturer](#) ∴ [Methanesulfonic acid](#) ∴ [kyselnamethansulfonova](#) ∴ [Methylsulphonicacid](#) ∴ [MethanesulfonicAcidForSynthesis](#) ∴ [Methanesulfonic acid, 70% aq. soln.](#) ∴ [Methanesulfonic acid, 98+%](#) ∴ [LutropurMSA](#) ∴ [Methanesulfonic acid, 70% solution in water, pure](#) ∴ [Methanesulfonic acid, extra pure, 99%](#) ∴ [METHANESULFONICACID,TECHNICAL](#) ∴ [Methansulfonsure](#) ∴ [methanesulfonic acid](#) ∴ [METHANESULFONIC ACID: 70% AQUEOUS SOLUTION](#) ∴ [METHANE SULFONIC ACID 70%](#) ∴ [METHANESULFONIC ACID 4.0 M WITH 0.2%*\(W/V\) TRYPTAMI](#) ∴ [METHANESULPHONIC ACID pure](#) ∴ [MCAT 1201](#) ∴ [Methanesulfonic acid, 99%, extra pure](#) ∴ [Methanesulfonic Acid \[for HPLC\]](#) ∴ [Methanesulfonic acid,pure,70% solution in water](#) ∴ [Methanesulfonic acid, 70% Solution in Water](#) ∴ [MsOH](#) ∴ [MeSO3H](#) ∴ [Sulphonethane](#) ∴ [METHANESULFONIC ACID](#) ∴ [METHANESULPHONIC ACID](#) ∴ [METHYLSULFONIC ACID](#) ∴ [METHYLSULFONATE, POLYMER-BOUND](#) ∴ [Alkanesulfonic acid](#) ∴ [Mesic acid](#) ∴ [Methanesulfonicacidaqsoln](#) ∴ [METHANE SULFONIC ACID ANHYDROUS](#) ∴ [METHANESULFONIC ACID, >=99.5%](#) ∴ [METHANESULFONIC ACID,70WT.%SOLUTION IN H](#) ∴ [METHANESULFONIC ACID 70 WT. % SOLUTION&](#) ∴ [METHANESULFONIC ACID, TECH., 70%](#) ∴ [METHANESULFONIC ACID, ELECTR GR\(MSA 70%](#) ∴ [Methanesulfonic acid solution, Eluent concentrate for IC, 0.1M in water](#) ∴ [METHANESULFONIC ACID SOLUTION, ~70% IN WATER](#)

Methanesulfonic acid solution 4 M (with 0.2% (w/v) tryptamine) : : : METHANESULFONIC ACID SOLUTION : : :
METHANESULFONIC ACID, 70 WT.% SOLUTION IN WATER : : : METHANESULFONIC ACID SOL., FOR PROTEIN S EQ. ANAL., 10X1 ML : : :
ANHYDROUS METHANESULFONIC ACID (AMSA) (WORLDWIDE EXCEPT NORTH AMERICA) : : : METHANESULFONIC ACID REAGENTPLUS(TM) & : : :
METHANESULFONIC ACID SOLUTION 50% IN WATER : : : ACIDO METANSOLFONICO : : : Methanesulfonic acid ,99% : : : Methanesulphonic acid, 98+% : : :
METHANESULFONIC ACID, 70% SOLN : : : Metane Sulfonic Acid : : : MSA : Metahanesulfonic Acid : : :
N-(4-Methyl-3-([4-(pyridin-3-yl)pyridin-2-yl]amino)phenyl)-4-[(4-Methylpiperazin-1-yl)methyl]benzamide

Copyright 2017 © ChemicalBook. All rights reserved