

METHANE SULFONIC ACID SOLVersion 3.0
SDS_US_GHS

SDS Number: 2202414

Revision Date: 07/02/2019

SECTION 1. IDENTIFICATION

Product name : METHANE SULFONIC ACID SOL
Product code : 2202414

Manufacturer or supplier's details

Company name of supplier : Atotech Deutschland GmbH

Address : Erasmusstrasse 20
Berlin 10553
Germany

Telephone : +4930349850

Company name of supplier : Atotech USA

Address : 1750 OVERVIEW DRIVE
ROCK HILL, SC, USA 29730

Telephone : +18038173500

Company name of supplier : Atotech Canada

Address : 1180 Corporate Drive
BURLINGTON L7L 5R6
Canada

Telephone : +19053320111

Prepared by
Product Safety Department (PSD): product-safety@atotech.com

Inquiries
E-mail address for a competent person responsible for the safety data sheet: product-safety@atotech.com

Emergency telephone number : CHEMTREC +18004249300

Transport Medical : Rocky Mountain Poison Control Center: 303-623-5716

Recommended use of the chemical and restrictions on use

Recommended use : Plating agents and metal surface treating agents
Surface treatment

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Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION
GHS classification in accordance with 29 CFR 1910.1200

Corrosive to metals	:	Category 1
Acute toxicity (Oral)	:	Category 4
Skin corrosion	:	Category 1B
Serious eye damage	:	Category 1
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)

GHS label elements

Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation.
Precautionary statements	:	Prevention: P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/doctor. Storage: P405 Store locked up. Disposal:

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P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Aqueous solution

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Methanesulfonic Acid	75-75-2	>= 60 - < 80

Actual concentration is withheld as a trade secret

This product may contain component(s) that are not listed under disclosure. All components not listed, do not contain hazardous materials above de minimus disclosure limits as defined by OSHA, NIOSH, ACGIH or Canadian WHMIS 2015 regulations and or guidelines. Please refer to other sections of the SDS for information on safety, health and environmental guidelines and precautions.

SECTION 4. FIRST AID MEASURES

General advice : Call a physician or poison control center immediately.
Show this safety data sheet to the doctor in attendance.

If inhaled : Call a physician or poison control center immediately.
Move to fresh air.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Take off contaminated clothing and shoes immediately.
Consult a physician.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 30 minutes.
Consult a physician.

If swallowed : If swallowed, call a poison control centre or doctor immediately.
Never give anything by mouth to an unconscious person.
Do not induce vomiting without medical advice.

Most important symptoms and effects, both acute and : Harmful if swallowed.
Causes serious eye damage.

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- delayed : May cause respiratory irritation.
Causes severe burns.
- Protection of first aid responders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
- Notes to physician : For specialist advice physicians should contact the Poison Control Center.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : No information available.
- Hazardous combustion products : Carbon oxides
Sulfur oxides
- Specific extinguishing methods : Use a water spray to cool fully closed containers.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for fire-fighters : As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
- Environmental precautions : Should not be released into the environment.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Avoid formation of aerosol.
Dam up.
Soak up with inert absorbent material.
Keep in suitable, closed containers for disposal.
Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the

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- application area.
Handle in accordance with good industrial hygiene and safety practice.
In case of insufficient ventilation, wear suitable respiratory equipment.
Avoid breathing mist or vapors.
- Conditions for safe storage : Keep containers tightly closed in a dry, cool and well-ventilated place.
May be corrosive to metals.
- Recommended storage temperature : -5 - 40 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters****||** Contains no substances with occupational exposure limit values.**Engineering measures** : Ensure adequate ventilation, especially in confined areas.**Personal protective equipment**

- Respiratory protection : No personal respiratory protective equipment normally required.

Use NIOSH approved respiratory protection.
In case of insufficient ventilation, wear suitable respiratory equipment.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hand protection
- Remarks : Impervious gloves
- Eye protection : Tightly fitting safety goggles
Face-shield
Ensure that eyewash stations and safety showers are close to the workstation location.
- Skin and body protection : Impervious clothing
Apron
Boots
- Hygiene measures : Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product.
When using do not eat, drink or smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

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Color	:	colorless, light yellow
Odor	:	No information available.
Odor Threshold	:	No data available
pH	:	< 2.0
Melting point/freezing point	:	-60 °C
Initial boiling point and boiling range	:	not determined
Flash point	:	Not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapor pressure	:	ca. 23 hPa (20 °C)
Relative vapor density	:	No data available
Density	:	1.30 - 1.40 g/cm ³ (20 °C)
Solubility(ies)		
Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Oxidizing properties	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	May be corrosive to metals.
Chemical stability	:	Stable under recommended storage conditions.

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Possibility of hazardous reactions	:	Gives off hydrogen by reaction with metals. Potential for exothermic hazard
Conditions to avoid	:	To avoid thermal decomposition, do not overheat.
Incompatible materials	:	Bases Metals
Hazardous decomposition products	:	Sulfur oxides Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Inhalation
Eye contact
Skin Absorption

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity : Acute toxicity estimate: 658.57 mg/kg
Method: Calculation method

Remark: The acute toxicity estimate (ATE) of the ingredients are derived using the LD50/LC50 values where available.

Components:**|| Methanesulfonic Acid:**

Acute oral toxicity : LD50 Oral (Rat): 461 mg/kg

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks: Extremely corrosive and destructive to tissue.
May cause irreversible skin damage such as necrosis, ulcers or burns.

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks: May cause irreversible eye damage such as corneal damage and blindness.

Respiratory or skin sensitization**Skin sensitisation**

Based on available data, the classification criteria are not met.

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Respiratory sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA specified

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT - single exposure

May cause respiratory irritation.

STOT - repeated exposure

Based on available data, the classification criteria are not met.

Aspiration toxicity

Based on available data, the classification criteria are not met.

Further information**Product:**

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability

No data available

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Bioaccumulative potential**Components:****|| Methanesulfonic Acid:**Partition coefficient: n- : log Pow: -2.38
octanol/water**Mobility in soil**

No data available

Other adverse effects**Product:**

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.
Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Empty containers should be taken to an approved waste
handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION**International Regulations****IATA-DGR**

UN/ID No. : UN 3265
Proper shipping name : Corrosive liquid, acidic, organic, n.o.s.
Technical name(s) : (Methanesulfonic Acid)
Class : 8
Packing group : II
Labels : Corrosive
Packing instruction (cargo : 855
aircraft)
Packing instruction : 851
(passenger aircraft)

IMDG-Code

UN number : UN 3265
Proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical name(s) : (Methanesulfonic Acid)
Class : 8
Packing group : II
Labels : 8
EmS Code : F-A, S-B
Marine pollutant : no

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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation**DOT / 49 CFR**

UN/ID/NA number : UN 3265
Proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
(Methanesulfonic Acid)
Class : 8
Packing group : II
Labels : CORROSIVE
ERG Code : 153
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION**TSCA 5a** : No substances are subject to a Significant New Use Rule.**TSCA_12b** : No substances are subject to TSCA 12(b) export notification requirements.**DEA** : Not applicable**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Corrosive to metals
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**US State Regulations****Massachusetts Right To Know**

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

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No components are subject to Pennsylvania Right to Know Act.

New Jersey Right To Know

Methanesulfonic Acid	75-75-2	60 - 80 %
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California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Remarks: Components which are only displayed in Section 15 are being reported for local regulatory purposes. These components are not displayed in Section 3 due to one or more of the following conditions being met: being present in the product at concentration(s) below threshold limit values for reporting, not considered hazardous materials, health hazards or because they do not contribute to the overall GHS Classification of the final product as required by OSHA HazCom 2012 final rule (29 CFR 1910.1200).

Substances currently restricted by WEEE/RoHS (European Directives 2015/863/EU, 2012/19/EU and 2011/65/EU) or ELV (European Directive 2000/53/EC):

PBDE	PBB	CrVI	Hg	Pb	Cd
-	-	-	-	-	-
Phthalates:		DEHP	BBP	DBP	DIBP
		-	-	-	-

Please note: Current legislation according to WEEE/RoHS or ELV restricting the use of certain substances applies to "homogeneous material" in finished articles being supplied to the market. Substances deposited during surface finishing may have a composition (weight percent) higher than the weight percent of the substance in the operating solution from which the deposit is made. Atotech encourages its customers to implement systems to ensure their finished products comply with the regulations in force.

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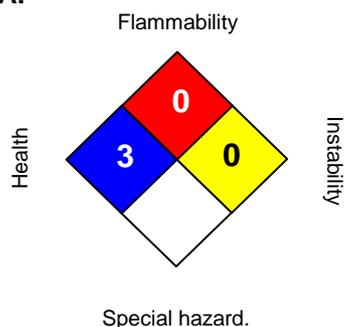
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SECTION 16. OTHER INFORMATION

Further information

NFPA:



Full text of other abbreviations

(Q)SAR - (Quantitative) Structure Activity Relationship; ASTM - American Society for the Testing of Materials; bw - Body weight; DIN - Standard of the German Institute for Standardisation; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; DOT - Department of Transportation; EHS - Extremely Hazardous Substance; HMIS - Hazardous Materials Identification System; MSHA - Mine Safety and Health Administration; NFPA - National Fire Protection Association; RCRA - Resource Conservation and Recovery Act; RQ - Reportable Quantity; SARA - Superfund Amendments and Reauthorization Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice; ERG - Emergency Response Guide; NTP - National Toxicology Program; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods

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