

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : CSI-1046

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Smart Chemical Solutions, LLC
2708 NE Main St.
Ennis, TX 75119
T (806) 367-8031

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (inhalation:dust,mist) Category 4	H332	Harmful if inhaled
Serious eye damage/eye irritation Category 1	H318	Causes serious eye damage
Full text of H statements : see section 16		

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning

Hazard statements (GHS US) : H318 - Causes serious eye damage
H332 - Harmful if inhaled

Precautionary statements (GHS US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P242 - Use only non-sparking tools.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
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

CSI-1046

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

contact lenses, if present and easy to do. Continue rinsing.
P307+P311 - If exposed: Call a poison center/doctor.
P310 - Immediately call a poison center or doctor.
P312 - Call a poison center or doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P370+P378 - In case of fire: Use media other than water to extinguish.
P391 - Collect spillage.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

14.71% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
27.01% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
27.01% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Amino Methylene Phosponic Acid Salts	CAS-No.: 7647-01-0	5 – 15	Skin Corr. 1, H314 Eye Dam. 1, H318
Quaternary ammonium compounds, benzyl-C12-16 alkyldimethyl, chlorides	CAS-No.: 68424-85-1	4 – 12.3	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400
Methanol	CAS-No.: 67-56-1	0.5 – 12.1	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370
Caustic Soda 50%	CAS-No.: 1310-73-2	≤ 5	Skin Corr. 1, H314 Eye Dam. 1, H318

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

CSI-1046

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after eye contact : Serious damage to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapor.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

CSI-1046

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Methanol (67-56-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Methanol
ACGIH OEL TWA [ppm]	200 ppm
ACGIH OEL STEL [ppm]	250 ppm
Remark (ACGIH)	TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI
Regulatory reference	ACGIH 2022
USA - ACGIH - Biological Exposure Indices	
Local name	METHANOL
BEI	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: End of shift - Notations: B, Ns
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Methyl alcohol
OSHA PEL TWA [1]	260 mg/m ³
OSHA PEL TWA [2]	200 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
Wear respiratory protection.

CSI-1046

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Color	: Colorless
Odor	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Characteristic odour Mild odour Pleasant odour Alcohol odour Commercial/unpurified substance: irritating/pungent odour Irritating/pungent odour Odourless
Odor threshold	: No data available
pH	: 6.23 – 6.53
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Density	: 8.37 – 8.67
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

CSI-1046

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Harmful if inhaled.

CSI-1046	
ATE US (dust, mist)	4.179 mg/l/4h
Unknown acute toxicity (GHS US)	14.71% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 27.01% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 27.01% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Methanol (67-56-1)	
LD50 oral rat	1187 – 2769 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, Aqueous solution, Oral, 7 day(s))
LD50 dermal rabbit	300 mg/kg Source: ECHA
LC50 Inhalation - Rat	128 mg/l air (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))
ATE US (oral)	1187 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h

Quaternary ammonium compounds, benzyl-C12-16 alkyldimethyl, chlorides (68424-85-1)	
LD50 oral rat	426 mg/kg Source: National Library of Medicine
ATE US (oral)	426 mg/kg body weight
Skin corrosion/irritation	: Not classified pH: 6.23 – 6.53

Methanol (67-56-1)	
pH	No data available in the literature

Amino Methylene Phosponic Acid Salts (7647-01-0)	
pH	0.1 (3.65 %)

Caustic Soda 50% (1310-73-2)	
pH	> 14 (20 °C)

CSI-1046

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Serious eye damage/irritation : Causes serious eye damage.
pH: 6.23 – 6.53

Methanol (67-56-1)

pH No data available in the literature

Amino Methylene Phosponic Acid Salts (7647-01-0)

pH 0.1 (3.65 %)

Caustic Soda 50% (1310-73-2)

pH > 14 (20 °C)

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Causes damage to organs.

Methanol (67-56-1)

STOT-single exposure Causes damage to organs.

STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available

Caustic Soda 50% (1310-73-2)

Viscosity, kinematic 51.803 mm²/s

Symptoms/effects after eye contact : Serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life.

Methanol (67-56-1)

LC50 - Fish [1] 15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)

EC50 - Crustacea [1] 18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect)

EC50 96h - Algae [1] 22000 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)

Quaternary ammonium compounds, benzyl-C12-16 alkyldimethyl, chlorides (68424-85-1)

LC50 - Fish [1] 0.51 mg/l Source: The ECOTOXicology database

EC50 - Crustacea [1] 0.0059 mg/l Source: The ECOTOXicology database

EC50 96h - Algae [1] 4.813 mg/l Source: Ecological Structure Activity Relationships

12.2. Persistence and degradability

Methanol (67-56-1)

Persistence and degradability Readily biodegradable in the soil. Readily biodegradable in water.

Biochemical oxygen demand (BOD) 0.6 – 1.12 g O₂/g substance

CSI-1046

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Methanol (67-56-1)

Chemical oxygen demand (COD)	1.42 g O ₂ /g substance
ThOD	1.5 g O ₂ /g substance

Amino Methylene Phosponic Acid Salts (7647-01-0)

Persistence and degradability	Biodegradability: not applicable.
-------------------------------	-----------------------------------

Caustic Soda 50% (1310-73-2)

Persistence and degradability	Biodegradability: not applicable.
-------------------------------	-----------------------------------

12.3. Bioaccumulative potential

Methanol (67-56-1)

BCF - Fish [1]	1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-0.77 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Quaternary ammonium compounds, benzyl-C12-16 alkyldimethyl, chlorides (68424-85-1)

Partition coefficient n-octanol/water (Log Pow)	3.91 Source: Quantitative Structure Activity Relation
-------------------------------------------------	-------------------------------------------------------

Amino Methylene Phosponic Acid Salts (7647-01-0)

Bioaccumulative potential	Not bioaccumulative.
---------------------------	----------------------

Caustic Soda 50% (1310-73-2)

Bioaccumulative potential	Does not contain bioaccumulative component(s).
---------------------------	------------------------------------------------

12.4. Mobility in soil

Methanol (67-56-1)

Mobility in soil	2.75 Source: HSDB
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	-0.89 – -0.21 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

Quaternary ammonium compounds, benzyl-C12-16 alkyldimethyl, chlorides (68424-85-1)

Mobility in soil	1002 Source: EPI Suite
------------------	------------------------

Amino Methylene Phosponic Acid Salts (7647-01-0)

Ecology - soil	No (test)data on mobility of the component(s) available. May be harmful to plant growth, blooming and fruit formation.
----------------	------------------------------------------------------------------------------------------------------------------------

Caustic Soda 50% (1310-73-2)

Ecology - soil	No (test)data on mobility of the component(s) available.
----------------	----------------------------------------------------------

12.5. Other adverse effects

No additional information available

CSI-1046

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

DOT	IMDG	IATA
14.1. UN number		
Not regulated	Not applicable	Not applicable
14.2. Proper Shipping Name		
Not regulated	Not applicable	Not applicable
14.3. Transport hazard class(es)		
Not regulated	Not applicable	Not applicable
14.4. Packing group		
Not regulated	Not applicable	Not applicable
14.5. Environmental hazards		
Not regulated	Not applicable	Not applicable
No supplementary information available		

14.6. Special precautions for user

DOT
Not regulated

IMDG
Not applicable

IATA
Not applicable

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Quaternary ammonium compounds, benzyl-C12-16 alkyldimethyl, chlorides	CAS-No. 68424-85-1	4 – 12.3%
Amino Methylene Phosponic Acid Salts	CAS-No. 7647-01-0	5 – 15%
Caustic Soda 50%	CAS-No. 1310-73-2	≤ 5%

CSI-1046

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Methanol	CAS-No. 67-56-1	0.5 – 12.1%
----------	-----------------	-------------

Methanol (67-56-1)

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ	5000 lb
-----------	---------

15.2. International regulations

CANADA

Methanol (67-56-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations


No additional information available

National regulations

Methanol (67-56-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

 **WARNING:** This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases

H318	Causes serious eye damage
------	---------------------------

H332	Harmful if inhaled
------	--------------------

Safety Data Sheet (SDS), USA