

SECTION 1: Product and company identification

Product name : MR2
Use of the substance/mixture : Cleaner
Product code : 0210
Company : Total Solutions
P.O. Box 240014
Milwaukee, WI 53224 - USA
T (414) 354-6417
Emergency number : Chemtec: (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Skin Corr. 1A H314
Carc. 1A H350
STOT RE 2 H373
Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : Causes severe skin burns and eye damage
May cause cancer (Inhalation)
May cause damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation)
Precautionary statements (GHS-US) : Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Do not breathe dust
Wash thoroughly after handling
Wear eye protection, protective clothing, protective gloves, face protection
If swallowed: rinse mouth. Do NOT induce vomiting
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
If inhaled: Remove person to fresh air and keep comfortable for breathing
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If exposed or concerned: Get medical advice/attention
Immediately call a doctor, a POISON CENTER
Get medical advice/attention if you feel unwell
Specific treatment (see ... on this label)
Wash contaminated clothing before reuse
Store locked up
Dispose of contents/container to comply with local/regional/national/international regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable
Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
sulfamic acid	(CAS No) 5329-14-6	10-30	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Crystalline Silica	(CAS No) 14808-60-7	10-30	Carc. 1A, H350
Oxalic Acid	(CAS No) 6153-56-6	10-30	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314
kieselguhr, soda ash flux calcined	(CAS No) 68855-54-9	3-7	STOT RE 2, H373
cristobalite, conc respirable crystalline silica>=10%	(CAS No) 14464-46-1	1-5	Carc. 1A, H350 STOT RE 2, H373

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
- First-aid measures after skin contact : Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes severe skin burns and eye damage. May cause cancer (Inhalation of dust.). May cause damage to organs through prolonged or repeated exposure.
- Symptoms/injuries after inhalation : Irritation of the respiratory tract. Prolonged exposure: danger of damage to health through inhalation.
- Symptoms/injuries after skin contact : Caustic burns/corrosion of the skin.
- Symptoms/injuries after eye contact : Causes serious eye damage. Corrosion of the eye tissue. Permanent eye damage.
- Symptoms/injuries after ingestion : Gastrointestinal complaints. Vomiting. Nausea.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : All extinguishing media allowed.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Apply aqueous extinguishing media carefully to prevent frothing/steam explosion. Upon heating, toxic fumes are formed. Under fire conditions closed containers may rupture or explode.
- Explosion hazard : Explosion risk in case of fire.
- Reactivity : Thermal decomposition may produce : oxides of sulfur. nitrogen. ammonia. formic acid.

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Isolate from fire, if possible, without unnecessary risk.

6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Protective goggles. Protective clothing.
- Emergency procedures : Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing. Ventilate spillage area.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Stop leak if safe to do so. Stop release. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent soil and water pollution.

6.3. Methods and material for containment and cleaning up

- For containment : Contain released substance, pump into suitable containers.
- Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing.
- Hygiene measures : Wash thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations.
- Storage conditions : Keep container closed when not in use. Store in original container.
- Incompatible products : Strong oxidizers. alkalis. Nitrites. Carbonates. sulfides. cyanides. sodium oxide. sulfur oxides.
- Incompatible materials : aluminum. Heat sources.
- Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources.
- Storage area : Store in a dry area. Store in a cool area.
- Special rules on packaging : meet the legal requirements. Keep only in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

crystalite, conc respirable crystalline silica>=10% (14464-46-1)

ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³
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8.2. Exposure controls

- Personal protective equipment : Use appropriate personal protective equipment when risk assessment indicates this is necessary. Gloves. Safety glasses. Protective clothing.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Appearance : free flowing. Off-white. Powder.
- Odor : No odor
- Odor threshold : No data available
- pH : No data available
- Melting point : No data available
- 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) : No data available
- Explosion limits : No data available
- Explosive properties : No data available
- Oxidizing properties : No data available
- Vapor pressure : No data available
- Relative density : No data available
- Relative vapor density at 20 °C : No data available
- Solubility : Soluble in water.
- Log Pow : No data available
- Log Kow : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Viscosity : No data available

Viscosity, kinematic : No data available
 Viscosity, dynamic : No data available
 VOC content : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition may produce : oxides of sulfur. nitrogen. ammonia. formic acid.

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid

Heat.

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 : Not classified

Oxalic Acid (6153-56-6)	
LD50 oral rat	375 mg/kg
sulfamic acid (5329-14-6)	
LD50 oral rat	3160 mg/kg (Rat; Literature study)
LD50 dermal rat	> 2000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)

Skin corrosion/irritation : Causes severe skin burns and eye damage.
 Serious eye damage/irritation : Not classified
 Respiratory or skin sensitization : Not classified
 Germ cell mutagenicity : Not classified
 Carcinogenicity : May cause cancer (Inhalation).

kieselguhr, soda ash flux calcined (68855-54-9)	
IARC group	3 - Not Classifiable
crystalite, conc respirable crystalline silica >=10% (14464-46-1)	
IARC group	1 - Carcinogenic to Humans
Crystalline Silica (14808-60-7)	
IARC group	1 - Carcinogenic to Humans

Reproductive toxicity : Not classified
 Specific target organ toxicity (single exposure) : Not classified
 Specific target organ toxicity (repeated exposure) : May cause damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation).
 Aspiration hazard : Not classified
 Symptoms/injuries after inhalation : Irritation of the respiratory tract. Prolonged exposure: danger of damage to health through inhalation.
 Symptoms/injuries after skin contact : Caustic burns/corrosion of the skin.
 Symptoms/injuries after eye contact : Causes serious eye damage. Corrosion of the eye tissue. Permanent eye damage.
 Symptoms/injuries after ingestion : Gastrointestinal complaints. Vomiting. Nausea.

SECTION 12: Ecological information

12.1. Toxicity

sulfamic acid (5329-14-6)	
LC50 fish 1	> 14.2 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 1	1.6 mg/l (48 h; Daphnia magna; GLP)

sulfamic acid (5329-14-6)	
EC50 other aquatic organisms 1	>= 1000 mg/l (16 h; Pseudomonas putida)
LC50 fish 2	70.3 mg/l (96 h; Pimephales promelas)
Threshold limit algae 1	48 mg/l (72 h; Desmodesmus subspicatus; GLP)

12.2. Persistence and degradability

kieselguhr, soda ash flux calcined (68855-54-9)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

cristobalite, conc respirable crystalline silica>=10% (14464-46-1)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

sulfamic acid (5329-14-6)	
Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

kieselguhr, soda ash flux calcined (68855-54-9)	
Bioaccumulative potential	No bioaccumulation data available.

cristobalite, conc respirable crystalline silica>=10% (14464-46-1)	
Bioaccumulative potential	No test data available.

sulfamic acid (5329-14-6)	
Log Pow	0.10 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

Additional information

Other information : This product may be eligible to be shipped as a Limited Quantity or Consumer Commodity ORM-D utilizing the exception found at 49 CFR 173.154.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

SECTION 16: Other information

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

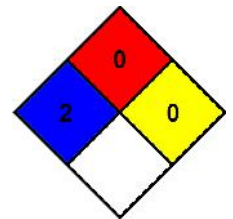
Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Carc. 1A	Carcinogenicity Category 1A
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H350	May cause cancer
H373	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Prepared by: Technical Department

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