

**SECTION 1: Product and company identification**

Product name : Rust Converter – Aerosol  
Use of the substance/mixture : Aerosol  
Coating  
Product code : 8346  
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**

**GHS-US classification**

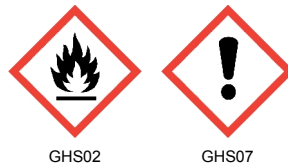
Flam. Aerosol 1 H222  
Eye Irrit. 2A H319  
STOT SE 3 H336

Full text of H statements : see section 16

**2.2. Label elements**

**GHS-US labeling**

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

Extremely flammable aerosol  
Causes serious eye irritation  
May cause drowsiness or dizziness

Precautionary statements (GHS-US) :

Keep away from heat, hot surfaces, Do not smoke, open flames, sparks. - No smoking  
Do not spray on an open flame or other ignition source  
Pressurized container: Do not pierce or burn, even after use  
Avoid breathing gas  
Wash thoroughly after handling  
Use only outdoors or in a well-ventilated area  
Wear eye protection, face protection  
If on skin: Wash with plenty of water  
If skin irritation or rash occurs: Get medical advice/attention  
Wash contaminated clothing before reuse  
IF SWALLOWED: Rinse mouth, Get medical attention if symptoms occur  
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  
Call a doctor, a POISON CENTER if you feel unwell  
If eye irritation persists: Get medical advice/attention  
Store in a well-ventilated place. Keep container tightly closed  
Store locked up  
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F  
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	%	GHS-US classification
acetone, propan-2-one, propanone	(CAS No) 67-64-1	40 - 60	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
isobutane	(CAS No) 75-28-5	10 - 20	Not classified
dimethyl ether	(CAS No) 115-10-6	10 - 20	Not classified
ethanediol, ethylene glycol	(CAS No) 107-21-1	2.5 - 10	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
TANNIC ACID	(CAS No) 1401-55-4	2.5 - 10	Not classified
2-propanol	(CAS No) 67-63-0	2.5 - 10	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
propane	(CAS No) 74-98-6	2.5 - 10	Flam. Gas 1, H220 Compressed gas, H280
oxalic acid	(CAS No) 144-62-7	1 - 2.5	Not classified

A specific chemical identity and/or percentage of composition has been withheld as a trade secret. Any concentration shown as a range is to protect confidentiality or is due to batch variation.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures general : If breathing is difficult, give oxygen. Get immediate medical attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this sheet where possible. Keep victim warm and rested.
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Artificial respiration and/or oxygen if necessary. Do not apply mouth-to-mouth resuscitation. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.
- First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician. For minor skin contact, avoid spreading material on unaffected skin. Wash contaminated clothing before reuse.
- First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Immediately call a poison center or doctor/physician.
- First-aid measures after ingestion : Rinse mouth with water. Get immediate medical advice/attention. Do not induce vomiting without medical advice. Drink plenty of water. If vomiting occurs have person lean forward.

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

- Symptoms/injuries : Causes serious eye irritation. May cause drowsiness or dizziness. Headache. Nausea, vomiting. Irritation of the nasal mucous membranes. Irritation to throat.
- Symptoms/injuries after inhalation : Irritation of the nasal mucous membranes. May cause drowsiness or dizziness. Headache. Nausea. Vomiting.
- Symptoms/injuries after skin contact : No effects known.
- Symptoms/injuries after eye contact : Causes serious eye irritation.
- Symptoms/injuries after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

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

Treat symptomatically. Symptoms may be delayed. Keep watching the victim.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Water fog. Alcohol-resistant foam. Dry powder. Carbon dioxide.
- Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Extremely flammable aerosol. Under fire conditions closed containers may rupture or explode. Combustion produces irritating gases.
- Explosion hazard : Contents under pressure. Pressurized container: may burst if heated.
- Reactivity : Upon combustion: CO and CO<sub>2</sub> are formed. Toxic gases may be formed. Irritating gases. In case of fire, corrosive gases come free.

### 5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Move containers away from the fire area if this can be done without risk. Use water spray or fog for cooling exposed containers. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

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- Special protective equipment for fire fighters : Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.
- Specific methods : Use standard firefighting procedures and consider the hazards of other involved materials. Move containers away from the fire area if this can be done without risk. Cool containers exposed to flames with water until well after the fire is out. . In case of fire and/or explosion do not breathe fumes.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Stay upwind/keep distance from source. Evacuate unnecessary personnel. Vapors may travel long distances along ground before igniting/flashing back to vapor source.

##### 6.1.1. For non-emergency personnel

- Protective equipment : Do not enter without an appropriate protective equipment. Advice local authorities if considered necessary. DO NOT touch spilled material. Ventilate the area thoroughly, especially low lying areas (basements, work pits etc.).
- Emergency procedures : Do not breathe gas. Evacuate unnecessary personnel. Keep upwind. 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. Advice local authorities if considered necessary. Stop leak if safe to do so. Do not contaminate water with the product or its container. Prevent entry to sewers and public waters. Do not allow to enter drains or water courses.

#### 6.3. Methods and material for containment and cleaning up

- For containment : Eliminate every possible source of ignition. Prevent the product from entering drains or confined areas. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Form with air vapors (heavier than air) who stay on the floor. Stop leak if safe to do so. Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid. Isolate area until gas has dispersed. Collect spillage.
- Methods for cleaning up : Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Dispose as hazardous waste.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Additional hazards when processed : Do not use if spray button is missing or defective. Pressurized container: Do not pierce or burn, even after use. Keep away from heat, sparks and flame.
- Precautions for safe handling : Avoid prolonged and repeated contact with skin. Intentional misuse by deliberately concentrating and inhaling may be harmful or fatal. Do not breathe gas/vapor/aerosol. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. . Do not spray on a naked flame or any incandescent material. Do not smoke while handling product. Ground/bond container and receiving equipment. Do not re-use empty containers. Avoid contact with skin and eyes. Use only outdoors or in a well-ventilated area. Observe normal hygiene standards. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Do not discharge the waste into the drain.
- Safe use of the product : Substance must not be discharged into the sewer.
- Hygiene measures : Wash thoroughly after handling.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Pressurized container. Do not puncture, incinerate or crush. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Storage conditions : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep cool. Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50 °C/ 122 °F. Refrigerate.
- Storage temperature : < 49 °C
- Storage area : Aerosol 2.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

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<b>ethanediol, ethylene glycol (107-21-1)</b>		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
ACGIH	Remark (ACGIH)	URT & eye irr
<b>2-propanol (67-63-0)</b>		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	400 ppm
ACGIH	Remark (ACGIH)	Eye & URT irr; CNS impair
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	980 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	400 ppm
<b>acetone, propan-2-one, propanone (67-64-1)</b>		
ACGIH	ACGIH TWA (ppm)	250 ppm
ACGIH	ACGIH STEL (ppm)	500 ppm
ACGIH	Remark (ACGIH)	eye irr; CNS impair; BEI
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2400 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
<b>propane (74-98-6)</b>		
ACGIH	ACGIH TWA (ppm)	1000 ppm
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1800 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
<b>isobutane (75-28-5)</b>		
ACGIH	ACGIH STEL (ppm)	1000 ppm
<b>oxalic acid (144-62-7)</b>		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
ACGIH	Remark (ACGIH)	URT, eye, & skin irr
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>

### 8.2. Exposure controls

#### Appropriate engineering controls

: Ensure good ventilation of the work station. If exposure limits have not been established, maintain airborne levels to an acceptable level. . Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. . Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

#### Personal protective equipment

: Gloves. Protective goggles. Protective clothing. Use appropriate personal protective equipment when risk assessment indicates this is necessary.



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Aerosol. brown.
Odor	: Solvent-like odour
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 74.69 °F Estimated
Flash point	: -156 °F Propellant estimated

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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
Specific gravity / density	: 0.519 g/ml Estimated
Solubility	: No data available
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

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Upon combustion: CO and CO2 are formed. Toxic gases may formed. irritating gases. In case of fire, corrosive gases come free.

#### 10.2. Chemical stability

Risk of explosion. Risk of ignition. Unstable.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

#### 10.4. Conditions to avoid

Heat. Open flame. Sparks. Aerosol containers are unstable at temperatures above 49°C. Avoid temperatures exceeding the flash point. . Incompatible materials.

#### 10.5. Incompatible materials

Strong oxidizing agents. Nitrates. Peroxides. Fluorine. Chlorine. Do not mix with other chemicals. May form an explosive mixture in the presence of air.

#### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Phosphorous oxide.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>ethanediol, ethylene glycol (107-21-1)</b>	
LD50 oral rat	4700 mg/kg
LD50 dermal rabbit	10626 mg/kg
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (dermal)	10626.000 mg/kg body weight
<b>TANNIC ACID (1401-55-4)</b>	
LD50 oral rat	2260 mg/kg
ATE CLP (oral)	2260.000 mg/kg body weight
<b>2-propanol (67-63-0)</b>	
LD50 dermal rabbit	12870 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 16.4; Rabbit)
LC50 inhalation rat (mg/l)	73 mg/l/4h (Rat)
ATE CLP (oral)	5045.000 mg/kg body weight
ATE CLP (dermal)	12870.000 mg/kg body weight
ATE CLP (vapors)	73.000 mg/l/4h
ATE CLP (dust, mist)	73.000 mg/l/4h
<b>oxalic acid (144-62-7)</b>	
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight

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Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

<b>TANNIC ACID (1401-55-4)</b>	
IARC group	3 - Not Classifiable

<b>2-propanol (67-63-0)</b>	
IARC group	3 - Not Classifiable

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Irritation of the nasal mucous membranes. May cause drowsiness or dizziness. Headache. Nausea. Vomiting.
Symptoms/injuries after skin contact	: No effects known.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.
Likely routes of exposure	: Skin and eyes contact; Inhalation

### SECTION 12: Ecological information

#### 12.1. Toxicity

2-propanol (67-63-0)	
LC50 fish 2	9640 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 2	13299 mg/l (EC50; Other; 48 h; Daphnia magna)
Threshold limit algae 1	> 1000 mg/l (EC50; UBA; 72 h; Scenedesmus subspicatus)

#### 12.2. Persistence and degradability

2-propanol (67-63-0)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.19 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.23 g O <sub>2</sub> /g substance
ThOD	2.40 g O <sub>2</sub> /g substance

#### 12.3. Bioaccumulative potential

2-propanol (67-63-0)	
Log Pow	0.05 (Weight of evidence approach; Other; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods	: Contents under pressure. Do not puncture, incinerate or crush.
Waste disposal recommendations	: Dispose of contents/container to comply with local/regional/national regulations.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

Transport document description	: UN1950 Aerosols (flammable, (each not exceeding 1 L capacity)), 2.1
UN-No.(DOT)	: UN1950
Proper Shipping Name (DOT)	: Aerosols flammable, (each not exceeding 1 L capacity)
Class (DOT)	: 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115

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Hazard labels (DOT) : 2.1 - Flammable gas



Marine pollutant : Yes (IMDG only)



DOT Packaging Non Bulk (49 CFR 173.xxx) : None  
 DOT Packaging Bulk (49 CFR 173.xxx) : None  
 DOT Special Provisions (49 CFR 172.102) : N82  
 DOT Packaging Exceptions (49 CFR 173.xxx) : 306  
 DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 75 kg  
 DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 150 kg  
 DOT Vessel Stowage Location : A  
 DOT Vessel Stowage Other : 25 - Shade from radiant heat, 87 - Stow "separated from" Class 1 (explosives) except Division 14, 126 - Segregation same as for Class 9, miscellaneous hazardous materials

### 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 173.306.

### ADR

No additional information available

### Transport by sea

UN-No. (IMDG) : UN1950  
 Proper Shipping Name (IMDG) : AEROSOLS  
 Class (IMDG) : 2.1 - Flammable gases

### Air transport

UN-No. (IATA) : UN1950  
 Proper Shipping Name (IATA) : Aerosols, flammable  
 Class (IATA) : 2.1 - Gases : Flammable

## 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.

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.

ethanediol, ethylene glycol	CAS No 107-21-1	2.5 - 10%
2-propanol	CAS No 67-63-0	2.5 - 10%

ethanediol, ethylene glycol (107-21-1)	
Listed on SARA Section 313 (Specific toxic chemical listings)	
CERCLA RQ	5000 lb
2-propanol (67-63-0)	
Listed on SARA Section 313 (Specific toxic chemical listings)	
CERCLA RQ	5000 lb
acetone, propan-2-one, propanone (67-64-1)	
Not listed on SARA Section 313 (Specific toxic chemical listings)	
CERCLA RQ	5000 lb

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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.

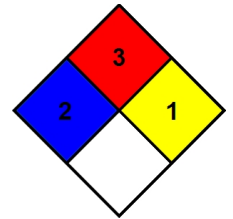
Full text of H-phrases:

H220	Extremely flammable gas
H222	Extremely flammable aerosol
H225	Highly flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H302	Harmful if swallowed
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
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 : 3 - Liquids and solids that can be ignited under almost all ambient conditions.

NFPA reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



Prepared by: Technical Department

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Our company assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of this material.*