

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 11/08/2016

Reviewed on 03/19/2015

## 1 Identification

- **Product identifier**
- **Trade name:** Eraser Solution
- **Article number:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Industrial uses.
- **Restrictions on use:** See Sections 8 and 10 for further information.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
AglC Inc.  
High Tech Hongo Bldg. 1F, 5-25-18 Hongo, Bunkyo  
Tokyo, 1130033, Japan  
Phone: +81 03 3815 8333

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Additional information:**

There are no other hazards not otherwise classified that have been identified.

0 percent of the mixture consists of ingredient(s) of unknown toxicity.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Danger

- **Hazard-determining components of labeling:**

propan-2-ol

- **Hazard statements**

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

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## Precautionary statements

- P210 Keep away from heat, sparks, open flames, and hot surfaces. - No smoking.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P261 Avoid breathing vapors.
- P280 Wear protective gloves and eye protection.
- P240 Ground/bond container and receiving equipment.
- P233 Keep container tightly closed.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P271 Use only outdoors or in a well-ventilated area.
- 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.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: Alcohol resistant foam or water spray..
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

## Hazard description:

### WHMIS-symbols:

B2 - Flammable liquid

D2B - Toxic material causing other toxic effects



## Classification system:

### NFPA ratings (scale 0 - 4)



### HMIS-ratings (scale 0 - 4)



## Other hazards

### Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

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## 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

67-63-0	propan-2-ol	 Flam. Liq. 2, H225  Eye Irrit. 2, H319; STOT SE 3, H336	40-60%
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- **Additional information:**  
For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.

## 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
Take affected persons out into the fresh air.
- **After inhalation:**  
Supply fresh air; consult doctor in case of complaints.  
Provide oxygen treatment if affected person has difficulty breathing.
- **After skin contact:**  
Immediately remove any clothing soiled by the product.  
Immediately rinse with water.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Remove contact lenses if worn.  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**  
Dizziness  
Coughing  
Breathing difficulty  
Irritant to eyes.  
Slight irritant effect on skin and mucous membranes.  
Nausea  
Gastric or intestinal disorders when ingested.  
Acidosis  
Disorientation
- **Danger**  
Vapors have narcotic effect.  
May be harmful if inhaled.
- **Indication of any immediate medical attention and special treatment needed**  
Medical supervision for at least 48 hours.

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If necessary oxygen respiration treatment.

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## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
  - Alcohol resistant foam
  - Water spray
  - Gaseous extinguishing agents
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture** Highly flammable liquid and vapor.
- **Advice for firefighters**
- **Protective equipment:**
  - Wear self-contained respiratory protective device.
  - Wear fully protective suit.
- **Additional information**
  - Eliminate all ignition sources if safe to do so.
  - Cool endangered product with water spray.
  - Use large quantities of foam as it is partially destroyed by the product.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Use respiratory protective device against the effects of fumes/dust/aerosol.
  - Wear protective equipment. Keep unprotected persons away.
  - Ensure adequate ventilation.
  - Keep away from ignition sources.
  - Protect from heat.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
  - Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).
  - Dispose contaminated material as waste according to item 13.
  - Send for recovery or disposal in suitable receptacles.
  - Clean the affected area carefully; suitable cleaners are:
    - Warm water
  - Used rags or other cleaning materials should be soaked with water and placed in a sealed container.
- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
  - Avoid splashes or spray in enclosed areas.
  - Use only in well ventilated areas.

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Take note of emission threshold.

Rags, metal wools / cuttings / shavings and waste papers soaked with product must be placed in a sealed metal container rated for flammable waste.

- **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Highly flammable liquid and vapor.

Fumes can combine with air to form an explosive mixture.

Flammable gas-air mixtures may be formed in empty receptacles.

Emergency cooling must be available in case of nearby fire.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Provide ventilation for receptacles.

Avoid storage near extreme heat, ignition sources or open flame.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from oxidizing agents.

- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.

- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

**67-63-0 propan-2-ol**

PEL (USA)	Long-term value: 980 mg/m <sup>3</sup> , 400 ppm
REL (USA)	Short-term value: 1225 mg/m <sup>3</sup> , 500 ppm
	Long-term value: 980 mg/m <sup>3</sup> , 400 ppm
TLV (USA)	Short-term value: 984 mg/m <sup>3</sup> , 400 ppm
	Long-term value: 492 mg/m <sup>3</sup> , 200 ppm
	BEI
EL (Canada)	Short-term value: 400 ppm
	Long-term value: 200 ppm
EV (Canada)	Short-term value: 400 ppm
	Long-term value: 200 ppm
LMPE (Mexico)	Short-term value: 400 ppm
	Long-term value: 200 ppm
	A4, IBE

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· **Ingredients with biological limit values:**

**67-63-0 propan-2-ol**

BEI (USA)	40 mg/L
	Medium: urine
	Time: end of shift at end of workweek
	Parameter: Acetone (background, nonspecific)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

· **Engineering controls:**

Take precautionary measures against static discharge.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

· **Breathing equipment:**

Use suitable respiratory protective device when aerosol or mist is formed.

Use suitable respiratory protective device when high concentrations are present.

NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Safety glasses

· **Body protection:** Impervious protective clothing

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- **Limitation and supervision of exposure into the environment**
- No further relevant information available.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Alcohol-like
Odor threshold:	Not determined.
pH-value:	neutral

- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	80 - 100 °C (176 - 212 °F)

- **Flash point:** 13 °C (55 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Auto-ignition temperature:** >260 °C (>500 °F)

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Not determined.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

Lower:	2 Vol %
Upper:	Not determined.

- **Vapor pressure at 20 °C (68 °F):** 27.3 hPa (20 mm Hg)

- **Density at 20 °C (68 °F):** 0.89 g/cm<sup>3</sup> (7.427 lbs/gal)

- **Relative density** Not determined.

- **Vapour density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with**

Water:	Fully miscible.
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- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

Dynamic:	Not determined.
Kinematic:	Not determined.

- **Solvent content:**

Organic solvents:	394 g/L
VOC content:	50 %

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· Other information

No further relevant information available.

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## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**  
Highly flammable liquid and vapor.  
Reacts violently with oxidizing agents.  
Reacts with strong acids and alkali.  
Used empty containers may contain product gases which form explosive mixtures with air.  
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.  
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid**  
Keep ignition sources away - Do not smoke.  
Store away from oxidizing agents.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**  
Under fire conditions only:  
Carbon monoxide and carbon dioxide

## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

### 67-63-0 propan-2-ol

Oral	LD50	5045 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rabbit)
Inhalative	LC50/4h	30 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** Causes mild skin irritation.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Subacute to chronic toxicity:** No further relevant information available.
- **Additional toxicological information:**  
Inhalation of concentrated vapors as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.
- **Carcinogenic categories**

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

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- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Probable Routes of Exposure**

Ingestion.  
Inhalation.  
Eye contact.  
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):**

Vapors have narcotic effect.  
Irritating to eyes.  
Causes mild skin irritation.

- **Repeated Dose Toxicity:** No further relevant information available.

### 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** biodegradable

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Inhibition of the development of the biomass

- **Additional ecological information:**

- **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

- **Waste disposal key:** EPA RCRA Code (USA) : D001 .

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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## 14 Transport information

- UN-Number
- DOT, ADR, IMDG, IATA
- UN proper shipping name

UN1219



Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 1 L (0.3 gal).

- DOT, IATA
- ADR
- IMDG
- Transport hazard class(es)
- DOT

Isopropanol solution  
1219 ISOPROPANOL SOLUTION  
ISOPROPANOL SOLUTION



- Class
- Label

3 Flammable liquids  
3

- ADR



- Class
- Label

3 (F1) Flammable liquids  
3

- IMDG, IATA



- Class
- Label
- Packing group
- DOT, ADR, IMDG, IATA
- Environmental hazards:
- Marine pollutant:
- Special precautions for user
- Danger code (Kemler):
- EMS Number:
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

3 Flammable liquids  
3  
II  
No  
Warning: Flammable liquids  
33  
F-E,S-D  
Not applicable.

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· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 5 L  
On cargo aircraft only: 60 L

· **ADR**

· **Excepted quantities (EQ)**

Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

· **IMDG**

· **Limited quantities (LQ)**

· **Excepted quantities (EQ)**

1L  
Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN1219, ISOPROPANOL SOLUTION, 3, II

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **United States (USA)**

· **SARA**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

All ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

67-63-0 | propan-2-ol

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· <b>TLV (Threshold Limit Value established by ACGIH)</b>	
67-63-0   propan-2-ol	A4

· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
None of the ingredients is listed.

· <b>State Right to Know Listings</b>
None of the ingredients is listed.

· <b>Canadian substance listings:</b>
· <b>Canadian Domestic Substances List (DSL)</b>
All ingredients are listed.

· <b>Canadian Ingredient Disclosure list (limit 0.1%)</b>
None of the ingredients is listed.

· <b>Canadian Ingredient Disclosure list (limit 1%)</b>
All ingredients are listed.

· <b>Other regulations, limitations and prohibitive regulations</b>	
This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.	
· <b>Chemical safety assessment:</b> A Chemical Safety Assessment has not been carried out.	

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 03/19/2015 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· **Sources**

SDS Prepared by:

ChemTel Inc.

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Tampa, Florida USA 33602-2902

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