

MATERIAL SAFETY DATA SHEET

[In accordance with Article 41, Industrial Safety and Health Act]

1. Chemical Product and Company Identification

- a. Product Name : PREMIUM GLASS CLEANER
- b. Recommended Use of the chemical
- Uses : Vehicle window cleaner
 - Restrictions on Use : None identified.
- c. Manufacturer Information
- ① Manufacturer : Fireballkorea
 - ② Address : 312 Nakdongdaero, Sahagu, Busan, S.Korea
 - ③ Emergency Telephone Number : 82-10-6462-8888
- d. Distributer Information
- ① Distributer : Fireballkorea
 - ② Address : 312 Nakdongdaero, Sahagu, Busan, S.Korea
 - ③ Emergency Telephone Number : 82-10-6462-8888

2. Hazards Information

- a. Hazards Classification : Skin Irritation – Category 2
- b. GHS Label Elements, including precautionary statements :



- Symbol :
 - Signal Word : Warning
 - Hazards Statements : Causes skin irritation.
 - Precautionary Statements :
 - Prevention : Wear protective gloves. Wear eye/face protection. Wear protective clothing. Wash thoroughly after handling.
 - Response : ○IF SWALLOWED : Rinse mouth. Do NOT induce vomiting.
○IF SKIN (or hair) : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. ○IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. ○IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.
 - Storage : Store locked up.
 - Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- c. Other hazards which do not result in classification : Not available.

3. Composition/Information on ingredients

Chemical name	KE Number	CAS Number	Percent(Wt%)
Water	KE-35400	7732-18-5	86-91
Ethanol	KE-13217	64-17-5	5-10
Sodium tri-oxyethylene laury ether sulfate	KE-32427	9004-82-4	<2
Propylen glycol	KE-29267	57-55-6	<1
D-Limonen	KE-24397	5989-27-5	<1
C.I. Pigment Violet 15	KE-13703	3844-45-9	<0.0002

4. First Aid Measures

- a. Eye Contact :
- Immediately flush eyes with plenty of water. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
 - Get medical attention if irritation occurs.
- b. Skin Contact :
- Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes.
 - Get medical attention if irritation occurs.
- c. Inhalation :

- Move exposed person to fresh air. Keep person warm and at rest.
 - If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur.
- d. Ingestion :
- Wash out mouth with water and give small quantities of water to drink.
 - Do not induce vomiting unless directed to do so by medical personnel.
 - If unconscious, place in recovery position and get medical attention immediately.
 - Get medical attention if symptoms occur.
- e. Most important symptoms/effects, acute and delayed : No reference.

5. Fire Fighting Measures

- a. Extinguishing Media
- Suitable : dry chemical, carbon dioxide, water spray, foam.
 - Not suitable : no specific data.
- b. Specific Hazards arising from the chemical :
- In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous Thermal Decomposition Products : Decomposition products may include the following materials:
- Carbon dioxide, carbon monoxide, halogenated compounds
- c. Specific Protective Equipment and Special Precautions for fire-fighters
- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operated in positive pressure mode.
 - Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

6. Accidental Release Measures

- a. Personal Precautions, Protective Equipment and Emergency Procedures :
- No action shall be taken involving any personal risk or without suitable training.
 - Evacuate surrounding areas.
 - Keep unnecessary and unprotected personnel from entering.
 - Do not touch or walk through spilled material.
 - Put on appropriate personal protective equipment.
- b. Environmental Precautions :
- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
 - Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air)..
- c. Methods and Materials for containment and cleaning up :
- Small Spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
 - Large Spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water Courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Note : see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and Storage

- a. Precautions for safe handling :
- Put on appropriate personal protective equipment.
 - Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed.
 - Workers should wash hands and face before eating, drinking and smoking.
- b. Conditions for safe storage :
- Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.
 - Keep container tightly closed and sealed until ready for use.
 - Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

- Do not store in unlabeled containers.
- Use appropriate containment to avoid environmental contamination.

8. Exposure Controls/Personal Protection

- a. Control Parameters : No specific data.
- b. Appropriate Engineering Controls :
- No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Environmental Exposure Controls :
- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- c. Personal Protective Equipment :
- Respiratory Protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
 - Eye Protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gasses or dusts.
 - Hand Protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
 - Skin Protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

9. Physical and Chemical Properties

- a. Appearance : Clear violet liquid.
- b. Odor : Lemon
- c. Odor Threshold : Not available.
- d. pH : 7.7[concentration(%w/w) : 100%]
- e. Melting/Freezing Point : Not available.
- f. Boiling Point/Boiling Range : Not available.
- g. Flash Point : Not available.
- h. Evaporation Rate : Not available.
- i. Flammability(Solid, Gas) : Not available.
- j. Lower and Upper Explosive(Flammable) Limits : Not available.
- k. Vapor Pressure : Not available.
- l. Solubility : Not available.
- m. Vapor Density : Not available.
- n. Relative Density(Water=1) : 0.897
- o. Octanol/Water Partition Coefficient : Not available.
- p. Auto-ignition Temperature : Not available.
- q. Decomposition Temperature : Not available.
- r. Viscosity : Not available.
- s. Molecular Weight : Not available.

10. Stability and Reactivity

- a. Chemical Stability : The product is stable.
- b. Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reaction will not occur.
- c. Conditions to avoid : No specific data.
- d. Incompatibles Materials : No specific data.
- e. Hazardous Decomposition Products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological Information

- a. Information on the likely routes of exposure :
- Inhalation : No known significant effects or critical hazards.
 - Ingestion : No known significant effects or critical hazards.
 - Skin Contact : No known significant effects or critical hazards.
 - Eye Contact : No known significant effects or critical hazards.
- b. Symptoms Related to the physical, chemical and toxicological characteristics :
- Inhalation : No specific data.
 - Ingestion : No specific data.
 - Skin Contact : No specific data.
 - Eye Contact : No specific data.
- c. Delayed and Immediate Effects and also Chronic Effects from short and long term exposure :
- Acute Toxicity : Not available.
 - Irritation/Corrosion : Not available.
 - Sensitization : Not available.
 - Carcinogenicity : Not available.
 - Mutagenicity : Not available.
 - Teratogenicity : Not available.
 - Reproductive Toxicity : Not available.
- d. ATE Value : Not available.

12. Ecological Information

- a. Aquatic and Terrestrial Toxicity : No known significant effects or critical hazards.
- b. Persistence/Degradability : Not available.
- c. Bioaccumulative Potential : Not available.
- d. Soil Mobility : Not available.
- e. Other Adverse Effects : No known significant effects or critical hazards.

13. Disposal Considerations

- a. Disposal Methods :
- Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
 - Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- b. Disposal Precautions :
- This material and its container must be disposed of in a safe way.
 - Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport Information

- a. UN Number : Not regulated.
- b. Proper Shipping Name : Not regulated.
- c. Classes : Not regulated.
- d. Packing Group : Not regulated.
- e. Marine Pollutant : Not applicable.
- f. Additional Information : -

15. Regulatory Information

- a. Regulation according to ISHA : Not applicable.
- b. Regulation according to TCCA : Not applicable.
- c. Dangerous Materials Control Act : Not available.
- d. Regulation according to Other Foreign Laws : Not available.

16. Other Information

- a. Prepared by : Fireballkorea
- b. Date of Issue : 8/14/2015
- c. Date of Revision :
- d. Notice to reader :

- To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
- Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.