



Section 1. Product and Company Identification

Product Identifier D12 - Glass Cleaner Concentrate
Product Use Description: Thin clear green liquid with fruity isopropanol odor

Manufacturer or suppliers' details

P & S Sales, Inc
20943 Cabot Blvd.
Hayward CA 94545
Emergency Number: 800-255-3924
Customer Service: 510-732-2628
Business Fax: 510-732-2632

Section 2. Hazards Identification

GHS Classification

Flammable Liquids : Category 3

Eye Irritation : Category 2A

Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

GHS Label Elements

Hazard Pictograms



Hazard Word **Warning**

Hazard Statements

Flammable liquid and vapour
Causes serious eye irritation
May cause drowsiness or dizziness

Precautionary Statements

- P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
- P233: Keep container tightly closed
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray
- P264: Wash skin thoroughly after handling
- P271: Use only outdoors or in a well-ventilated area
- P280: Wear protective gloves/protective clothing/eye protection/face protection

3. Composition Information on Ingredients

CAS Number	Wt %	Component Name
67-63-0	20-30%	Isopropanol, 2-Propanol
29911-28-2	2-10%	2-Propanol, 1-(2-butoxy-1-methylethoxy)-



Amounts specified are typical and do not represent a specification. Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

4. First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes. Call a physician if irritation develops.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Listed fire data is for Pure Isopropyl Alcohol.

Explosion:

Above flash point, vapor-air mixtures are explosive within flammable limits noted above.

Contact with strong oxidizers may cause fire or explosion. Vapors can flow along surfaces to distant ignition source and flash back. Sensitive to static discharge.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures.

7. Handling and Storage

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Small quantities of peroxides can form on prolonged storage.



Exposure to light and/or air significantly increases the rate of peroxide formation. If evaporated to a residue, the mixture of peroxides and isopropanol may explode when exposed to heat or shock.

8. Exposure Controls and Personal Protection

67-63-0	Isopropanol, 2-Propanol	200 ppm TLV (ACGIH 8 hour)
		400 ppm STEL ACGIH
		400 ppm NIOSH REL TWA
		400 ppm OSHA Z-1 TWA
29911-28-2	2-Propanol, 1-(2-butoxy-1-methylethoxy)-	None Listed

VENTILATION

Use only with ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air. No smoking, or use of flame or other ignition sources.

RESPIRATORY PROTECTION

Use supplied-air respiratory protection in confined or enclosed spaces, if needed.

PROTECTIVE GLOVES

Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

EYE PROTECTION

Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT

Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing, which could result in prolonged or repeated skin contact.

WORK PRACTICES / ENGINEERING CONTROLS

To prevent fire or explosion risk from static accumulation and discharge, effectively bond and/or ground product transfer system in accordance with (THE) National Fire Protection Association PUBLICATIONS.

9. Physical and Chemical Properties

Flash Point 24°C (75°F) CC	Upper Flamability Limit 12.7 %
Auto Ignition 399°C (750°F)	Lower Flamability Limit 2.0 %
Physical State liquid	Color Green
pH 5.5	Vapor Press 44 mmHg
Specific Gravity .906	Viscosity thin
Vapor Density (Air=1) 2.1	Melting Point °F -11°F
Water Solubility complete	Odor IPA/Fruity
	VOC Content 24%

10. Stability and Reactivity

Stability Stable	Hazardous Polymerization Not Expected to Occur
Conditions to Avoid	Keep away from extreme heat, Strong Acids, Alkalies and Oxidizers such as Chlorine, other Halogens, Hydrogen Peroxide and Oxygen
Hazardous	No substances are readily identifiable from composition but no degradation



Decomposition Products data is available.

11. Toxicological Information

Oral rat LD50: 5045 mg/kg; skin rabbit LD50: 12.8 gm/kg; inhalation rat LC50: 16,000 ppm/8-hour; investigated as a tumorigen, mutagen, reproductive effector.

Product:

Acute oral toxicity :Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method

Acute inhalation toxicity :Acute toxicity estimate : > 40 mg/l Exposure time: 4 h, Test atmosphere: vapour

Acute dermal toxicity :Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method

12. Ecological Information

Environmental Fate:

When released into the soil, this material is expected to quickly evaporate, may leach into groundwater and may biodegrade to a moderate extent. When released to water, this material is expected to quickly evaporate, have a half-life between 1 and 10 days and may biodegrade to a moderate extent. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals, to have a half-life between 1 and 10 days and may be removed from the atmosphere to a moderate extent by wet deposition.

Environmental Toxicity: The LC50/96-hour values for fish are over 100 mg/l. This material is not expected to be toxic to aquatic life.

13. Disposal Considerations

Options for disposal of this product may depend on the conditions under which it was used. To determine the proper method of disposal, refer to RCRA (40 CFR 261), as well as federal EPA and state and local regulations.

Please refer to Sections 5, 6 and 15 for additional information.

14. Transportation Information

Domestic (Land, D.O.T.)

Proper Shipping Name: This Product is NOT considered a Flammable hazard for domestic shipments, 173.150 (e)(2)

International (Water, I.M.O.)

Proper Shipping Name: UN1993, Flammable Liquid, N.O.S. (Isopropanol), PG II
Information reported for product/size: 32 oz up to 55 gallon drum.



15. Regulatory Information

THRESHOLD PLANNING QUANTITY (TPQ), EPA REGULATION 40 CFR 355 (SARA Sections 301-304)

No TPQ for product or any constituent greater than 1% or 0.1% (carcinogen).

TOXIC CHEMICAL RELEASE REPORTING, EPA REGULATION 40 CFR 372 (SARA Section 313)

Isopropanol (67-63-0) Listed

HAZARDOUS CHEMICAL REPORTING, EPA REGULATION 40 CFR 370 (SARA Sections 311-312)

EPA Hazard Classification Codes: Acute, Chronic, Fire

TOXIC SUBSTANCES CONTROL ACT (TSCA)

This product does not contain polychlorinated biphenyls (PCB's).

All components of this product are listed on the U.S. TSCA inventory.

CARB CONSUMER REGS

This product must be diluted 10 parts water to 1 part Concentrate to meet CARB Glass cleaner requirements of < 3% VOC.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. Clean- Water Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

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The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure proper health, safety and other necessary information is included on the container.

Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH American Conference of Government Industrial Hygienists

LD50 Lethal Dose 50%

AICS Australia, Inventory of Chemical Substances

LOAEL Lowest Observed Adverse Effect Level

DSL Canada, Domestic Sub- stances List

NFPA National Fire Protection Agency

NDSL Canada, Non-Domestic Sub- stances List

NIOSH National Institute for Occupational Safety & Health

CNS Central Nervous System



NTP National Toxicology Program
CAS Chemical Abstract Service
NZIoC New Zealand Inventory of Chemicals
EC50 Effective Concentration
NOAEL No Observable Adverse Effect Level
EC50 Effective Concentration 50%
NOEC No Observed Effect Concentration
EGEST EOSCA Generic Exposure Scenario Tool
OSHA Occupational Safety & Health Administration
EOSCA European Oilfield Specialty Chemicals Association
PEL Permissible Exposure Limit
EINECS European Inventory of Existing Chemical Substances
PICCS Philippines Inventory of Commercial Chemical Substances
MAK Germany Maximum Concentration Values
PRNT Presumed Not Toxic
GHS Globally Harmonized System
RCRA Resource Conservation Recovery Act
>= Greater Than or Equal To
STEL Short-term Exposure Limit
IC50 Inhibition Concentration 50%
SARA Superfund Amendments and Reauthorization Act.
IARC International Agency for Research on Cancer
TLV Threshold Limit Value
IECSC Inventory of Existing Chemical Substances in China
TWA Time Weighted Average
ENCS Japan, Inventory of Existing and New Chemical Substances
TSCA Toxic Substance Control Act
KECI Korea, Existing Chemical Inventory
UVCB Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<= Less Than or Equal To
WHMIS Workplace Hazardous Materials Information System
LC50 Lethal Concentration 50%