

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 02/15/2021

Reviewed on 02/15/2021

1 Identification

- **Product Identifier**
- **Trade Name: Modified K600 Potassium Eluant for Invitrogen Life Technologies**
- **Product Number:** IVGN-K600
- **Relevant identified uses of the substance or mixture and uses advised against:**
No further relevant information available.
- **Product Description:** Modified K600 Potassium Eluant
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Pickering Laboratories, Inc.
1280 Space Park Way
Mountain View, CA 94043
Phone: (650) 694-6700
Fax: (650) 968-0749
www.pickeringlabs.com
support@pickeringlabs.com
- **Emergency telephone number:**
Clean Harbors Environmental Services
1-800-645-8265

* 2 Hazard(s) Identification

- **Classification of the substance or mixture:**



Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Warning
- **Hazard statements:**
H226 Flammable liquid and vapor.
H319 Causes serious eye irritation.
- **Precautionary statements:**

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

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- P303+P361+P353 If on skin (or hair): 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.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO2, powder 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.

Unknown acute toxicity:

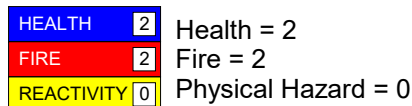
This value refers to knowledge of known, established toxicological or ecotoxicological values. 0 % of the mixture consists of component(s) of unknown toxicity.

Classification system: NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

NFPA ratings (scale 0 - 4)



HMIS-ratings (scale 0 - 4)



Hazard(s) not otherwise classified (HNOC): None

*** 3 Composition/Information on Ingredients**

- Chemical characterization: Substance**
- Description:** Mixture of substances listed below with non-hazardous additions.

Dangerous Components:

CAS: 67-63-0 RTECS: NT 8050000	Isopropyl alcohol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2A, H319; STOT SE 3, H336	5-12%
CAS: 7758-11-4	Dipotassium Hydrogenorthophosphate	≤1%
CAS: 64-19-7 RTECS: AF 1225000	Acetic Acid ⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332 Specific concentration limits: Skin Corr. 1A; H314: C ≥ 90 % Skin Corr. 1B; H314: 25 % ≤ C < 90 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %	≤0.5%

Additional information:

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

*** 4 First-Aid Measures**

- Description of first aid measures**
- General information:** If symptoms persist, call a physician.
- After inhalation:**
Not anticipated under normal use.
Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in the side position for transportation.

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- **After skin contact:** If skin irritation occurs, consult a doctor.
- **After eye contact:**
Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.
If easy to do so, remove contact lenses if worn.
If eye irritation occurs, consult a doctor.
- **After swallowing:**
Rinse mouth with water ensuring that rinse is not swallowed. Drink 2 glasses of water to dilute and induce vomiting by touching finger to the back of the victims throat. Get medical assistance immediately.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

* 5 Fire-Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture:**
Combustible liquid. Vapors can travel to a source of ignition and flash back.
Explosive mixtures may occur at temperatures at or above flashpoint.
- **Advice for firefighters**
- **Special protective equipment for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

* 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to section 13.
Ensure adequate ventilation.
Dispose of the collected material according to regulations.
- **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.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

67-63-0	Isopropyl alcohol	400 ppm
7758-11-4	Dipotassium Hydrogenorthophosphate	13 mg/m ³
64-19-7	Acetic Acid	5 ppm

· **PAC-2:**

67-63-0	Isopropyl alcohol	2000* ppm
7758-11-4	Dipotassium Hydrogenorthophosphate	140 mg/m ³
64-19-7	Acetic Acid	35 ppm

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· PAC-3:		
67-63-0	Isopropyl alcohol	12000** ppm
7758-11-4	Dipotassium Hydrogenorthophosphate	830 mg/m ³
64-19-7	Acetic Acid	250 ppm

* 7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
 Avoid contact with skin, eyes and clothing
 Avoid breathing fumes.
 Use personal protection equipment as outlined in section 8.
 Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
 Keep ignition sources away - Do not smoke.
 Protect from heat.
 Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
 Store in dry conditions at a temperature range of 8°C - 25°C.
 Keep away from any sources of heat or flame.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
 Keep receptacle tightly sealed.
 Protect from heat and direct sunlight.
- **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 section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
 The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
 At this time, the other constituents have no known exposure limits.

67-63-0 Isopropyl alcohol	
PEL	Long-term value: 980 mg/m ³ , 400 ppm
REL	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm BEI

- **Ingredients with biological limit values:**

67-63-0 Isopropyl alcohol	
BEI	40 mg/L urine end of shift at end of workweek Acetone (background, nonspecific)

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- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
 Use adequate exhaust ventilation to prevent inhalation of product vapors.
 Do not eat or drink while handling product.
 The usual precautionary measures for handling chemicals should be followed.
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing and wash before reuse.
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes.
- **Breathing equipment:**
 Respiratory protection is not required unless handling of the material produces nuisance airborne concentrations.
- **Protection of hands:**



Protective gloves

- **Material of gloves:** Latex or vinyl
- **Penetration time of glove material:**
 The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.
- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Lab coat
- **Limitation and supervision of exposure into the environment:** None

* **9 Physical and Chemical Properties**

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Odorless
Odor threshold:	Not determined.
- **pH-value @ 20 °C (68 °F):** 6.3
- **Change in condition**

Melting point/Melting range:	Not determined.
Flash point:	41 °C (105.8 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	≥456 °C (≥852.8 °F)
Decomposition temperature:	Not determined.

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- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
 - Lower:** 0 Vol %
 - Upper:** 12 Vol %
- **Vapor pressure @ 20 °C (68 °F):** ≤23 hPa (≤17.3 mm Hg)
- **Density @ 20 °C (68 °F):** 0.9791 g/cm³ (8.1706 lbs/gal)
- **Bulk density:** 1 kg/m³
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
 - Water:** Aqueous solution
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** 11.2 %
 - VOC content:** 11.20 %
- **Other information:** 781.3 g/l / 6.52 lb/gal
- **Other information:** No further relevant information available.

* **10 Stability and Reactivity**

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Heat, flame and ignition sources.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

* **11 Toxicological Information**

- **Information on toxicological effects:**
- **Acute toxicity:**

LD/LC50 values that are relevant for classification:		
67-63-0 Isopropyl alcohol		
Oral	LD50	5,045 mg/kg (Rat)
Dermal	LD50	12,800 mg/kg (Rabbit)
Inhalative	LC50/4 h	30 mg/l (Rat)
	LC50/96 hours	9,640 mg/l (Pimephales)

- **Primary irritant effect:**
- **On the skin:** Mild irritant effect.
- **On the eye:** Irritating effect.

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· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

· **Carcinogenic categories:**

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

- Group 1 - Carcinogenic to humans
- Group 2A - Probably carcinogenic to humans
- Group 2B - Possibly carcinogenic to humans
- Group 3 - Not classifiable as to its carcinogenicity to humans
- Group 4 - Probably not carcinogenic to humans

67-63-0	Isopropyl alcohol	3
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· **NTP (National Toxicology Program):**

None of the ingredients are listed.

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

None of the ingredients are listed.

*12 Ecological Information

· **Toxicity:**

· **Aquatic toxicity:**

67-63-0 Isopropyl alcohol

EC50	6,851 mg/l (Green algae)
	5,102 mg/l (Water flea)

· **Persistence and degradability:** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential:** No further relevant information available.

· **Mobility in soil:** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or product that has not been neutralized 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:**

Do not allow product to reach sewage system.

This product may be mixed with a combustible solvent and burned in a chemical incinerator equipped with an after burner and scrubber. This product can also be sent to an EPA approved waste disposal facility.

Observe all federal, state and local environmental regulations when disposing of this material.

· **Uncleaned packaging**

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

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

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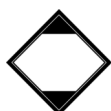
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***14 Transport Information**

- **UN-Number:** UN1993
- **DOT, ADR/ADN, IMDG, IATA** UN1993
- **UN proper shipping name:** Flammable liquids, n.o.s. (Isopropanol)
- **DOT** UN1993 FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL))
- **ADR/ADN** UN1993 FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL))
- **IMDG, IATA** FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL))
- **Transport hazard class(es):**
- **DOT**



Limited Quantity

- **Class:** 3 Flammable liquids
- **Label:** 3

· **ADR/ADN**



Limited Quantity

- **Class:** 3 (F1) Flammable liquids
- **Label:** 3

· **IMDG, IATA**



Limited Quantity

- **Class:** 3 Flammable liquids
- **Label:** 3+ID8000
- **Packing group:** III
- **DOT, ADR/ADN, IMDG, IATA** III
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Warning: Flammable liquids

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- **Hazard identification number (Kemler code):** 33
- **EMS Number:** F-E,S-E
- **Stowage Category:** A
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **Transport/Additional information:**
- **DOT**
- **Quantity limitations:** On passenger aircraft/rail: 60 L
On cargo aircraft only: 220 L

- **ADR/ADN**
- **Excepted quantities (EQ):** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

- **IMDG**
- **Limited quantities (LQ):** 5L
- **Excepted quantities (EQ):** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
- **UN "Model Regulation":** UN 1993 FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL)), 3, III

***15 Regulatory Information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
No further relevant information available.
- **SARA (Superfund Amendments and Reauthorization):**

Section 355 (extremely hazardous substances):	None of the ingredients are listed.
Section 313 (Specific toxic chemical listings):	67-63-0 Isopropyl alcohol
TSCA (Toxic Substances Control Act):	All components have the value ACTIVE.
Hazardous Air Pollutants	None of the ingredients are listed.
California Proposition 65:	
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 are listed.
Chemicals known to cause developmental toxicity:	None of the ingredients are listed.
New Jersey Right-to-Know List:	
67-63-0	Isopropyl alcohol
64-19-7	Acetic Acid

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· New Jersey Special Hazardous Substance List:		
67-63-0	Isopropyl alcohol	F3
64-19-7	Acetic Acid	CO, F2

· Pennsylvania Right-to-Know List:		
67-63-0	Isopropyl alcohol	
64-19-7	Acetic Acid	

· Pennsylvania Special Hazardous Substance List:		
67-63-0	Isopropyl alcohol	E
64-19-7	Acetic Acid	E

· Carcinogenic categories:

· EPA (Environmental Protection Agency):		
None of the ingredients are listed.		

· TLV (Threshold Limit Value established by ACGIH):

67-63-0	Isopropyl alcohol	A4
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· NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients are listed.		
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· GHS label elements

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

· Hazard pictograms:



· Signal word: Warning

· Hazard statements:

H226 Flammable liquid and vapor.
H319 Causes serious eye irritation.

· Precautionary statements:

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P264 Wash thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P303+P361+P353 If on skin (or hair): 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.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO2, powder 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.

· National regulations:

None of the ingredients are listed.		
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- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

- **Contact:**

- **Date of last revision/ revision number:** 02/15/2021 / 10

- **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 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)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety and Health
 OSHA: Occupational Safety & Health Administration
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 BEI: Biological Exposure Limit
 Flam. Liq. 2: Flammable liquids – Category 2
 Flam. Liq. 3: Flammable liquids – Category 3
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Corr. 1A: Skin corrosion/irritation – Category 1A
 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- *** Data compared to the previous version altered.**

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