SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier
Trade name: Fluoro-Spec Lead Detection Liquid

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Lead Detection Liquid.
Uses advised against: All other uses.

1.3 Details of the supplier of the Safety Data Sheet
Fluoro-Spec Inc
9 Technology Drive
East Setauket, New York, 11733,
USA

Phone: 6314611838
E-mail: eric@fluorospect.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to OSHA Hazardous Communication Standard 29 CFR 1910.1200.
Flammable liquid, category 2
Eye irritation, category 2
Specific target organ toxicity -single exposure, category 3

2.2 Label elements
Labelling according to OSHA Hazardous Communication Standard 29 CFR 1910.1200:

Signal word: Danger

Hazard statements:
H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P330 Rinse mouth.
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.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

2.3 Other hazards
None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture meeting the criteria for classification in accordance with OSHA Hazardous Communication Standard 29 CFR 1910.1200.

Ingredients:

Name	CAS No.	GHS classification	% (w/v)
Isopropyl Alcohol	67-63-0	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	>90%
Methylammonium bromide	6876-37-5	Skin Irrit. 2, H315 Eye Irrit. 2, H319	Proprietary
Mandelic acid	90-64-2	Eye Dam. 1, H318	Proprietary

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Following inhalation: After inhalation: fresh air. Call in physician.

Following skin contact: In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Following eye contact: After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

Following ingestion: After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Protection of first aider: Not applicable.

4.2 Most important symptoms and effects

Symptoms: The known symptoms and effects are described in section 2.2 of this SDS.

Risks: Untreated symptoms may result in additional health risks.

4.3 Indication of any immediate medical and special treatment
The physician may contact the national poison centre for advice.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Dry chemical, CO2, water spray or alcohol-resistant foam.

Unsuitable extinguishing media: No data available.

5.2 Specific hazards arising from mixture
Carbon oxides
formaldehyde
corrosive vapors
Nitrogen oxides (NOx)

5.3 Advice for fire fighters

Special protective equipment for firefighters:
As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

5.4 Other information
No other information available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 NOTES FOR NON-EMERGENCY PERSONNEL: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations.

6.2 ENVIRONMENTAL PRECAUTIONS: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Notes for those trained to participate in an emergency:

6.3 ACCIDENTAL RELEASE MEASURES: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition. Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Container may be opened only under exhaust ventilation hood. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Incompatible materials: See section 10.

7.3 Specific end uses

See section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Relevant DNELs and other threshold levels

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	500 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	1.000 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
DNEL	888 mg/kg bw/ day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs and other threshold levels

End-point	Threshold level	Organism	Environmental com-partment	Exposure time
PNEC	140,9 $^{mg}/_{l}$	aquatic organisms	freshwater	short-term (single instance)
PNEC	140,9 $^{mg}/_{l}$	aquatic organisms	marine water	short-term (single instance)
PNEC	2.251 $^{mg}/_{l}$	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
PNEC	552 $^{mg}/_{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
PNEC	552 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
PNEC	28 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Engineering controls:
Ensure that eyewash stations and safety showers are close to the workstation location. Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal Protective equipment:

Hand: Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

Body protection: Appropriate protective clothing should be worn to prevent skin contact.

Eye: Use safety goggle with side protection.

Respiratory: Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

Other measures: No statement available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Color:	Colorless
Odor:	Alcohol like
Odor threshold:	1 – 196 ppm
pH:	7
Melting point/range:	-89 °C
Boiling point/range:	82 – 83 °C at 1.013 hPa
Flash point:	12 °C
Evaporation rate:	No data available
Flammability:	flammable liquid in accordance with GHS criteria
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	43 hPa at 20 °C
Vapor density:	No data available
Relative Density:	0.79 g /cm³ at 20 °C
Solubility(ies):	miscible in any proportion (water)
Partition coefficient (n-octanol/water):	0.05
Auto-ignition temperature:	425 °C
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
No dangerous reaction known under conditions of normal use.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Vapours may form explosive mixture with air.

10.4 Conditions to avoid
Keep away from heat, flame, sparks and other ignition sources.

10.5 Incompatible materials
Strong acids
Aldehydes
Oxidizing agents
Rubber
Oils
Plastics
Amines

Metals
Halogenated compounds
Peroxides
Bases

10.6 Hazardous decomposition products
Carbon oxides
Sulphur oxides

SECTION 11: TOXICOLOGICAL INFORMATION

General information:
This product does not contain known human carcinogens.

11.1 Information on toxicological effects

Acute Toxicity:
No statements available for any of the ingredients.

Skin corrosion/irritation:
No statements available for any of the ingredients.

Serious eye damage/irritation:
Causes serious eye irritation.

Respiratory or skin sensitization:
No statements available for any of the ingredients.

Germ cell mutagenicity:
No statements available for any of the ingredients.

Carcinogenicity:
This product does not contain known human carcinogens.

Reproductive toxicity:
No statements available for any of the ingredients.

STOT – single exposure:
May cause drowsiness or dizziness.

STOT – repeated exposure:
No statements available for any of the ingredients.

Aspiration hazard:
No statements available for any of the ingredients.

Likely route(s) of exposure:
Skin exposure and eye exposure are the most likely to occur. Accidental ingestion is also possible.

SECTION 12: ECOLOGICAL INFORMATION

General information:
No statements available for any of the ingredients.

12.1 Toxicity
No statements available for any of the ingredients.

12.2 Persistence and degradability

Physical- and photochemical elimination:
No statements available for any of the ingredients.

Biodegradation:
No statements available for any of the ingredients.

12.3 Bioaccumulative potential
No statements available for any of the ingredients.

12.4 Mobility in soil

Known/Predicted environmental distribution:
No statements available for any of the ingredients.

Surface tension:
No statements available for any of the ingredients.

Adsorption/Desorption:
No statements available for any of the ingredients.

12.5 Results of PBT and vPvB assessment
This product does not contain components which are considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
No statements available for any of the ingredients.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product:
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Waste material:
Dispose according to Federal, State, Provincial and Local regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number
ADR/RID/IDMG/IATA: UN 1219

14.2 UN proper shipping name
ADR/RID/IDMG/IATA: Isopropanol

14.3 Transport hazard class(es)
ADR/RID/IDMG/IATA: 3

14.4 Packing group
ADR/RID/IDMG/IATA: II

14.5 Environmental hazards
ADR/RID/IDMG/IATA: Non-regulated

14.6 Special precautions for user
No statements available.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable, as product is not shipped in bulk.

SECTION 15: REGULATORY INFORMATION

International Inventories
TSCA: Complies
DSL: All components are listed either on the DSL or NDSL.

TSCA - Not Listed

US Federal Regulations
SARA 313: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories
Acute health hazard: Yes
Chronic Health Hazard: Yes
Fire hazard: Yes
Sudden release of pressure hazard: No
Reactive Hazard: No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations
California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canada
WHMIS Hazard Class
Not determined.

SECTION 16: OTHER INFORMATION

Further information
The information presented in this Safety Data Sheet (SDS) is accurate to the best of our knowledge at the date of publication. The information given within the SDS is meant solely as a guide for safe handling, use, transportation, processing, storage, release and disposal. In no means can the information within the SDS be considered as a warranty or specification for quality.