

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)


Printing date: 04/12/2016

Revision: 04/12/2016

1 Identification

- **Product identifier**
- **Trade name:** Ret-Search II (Dye)
- **Article number:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Diagnostic testing
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
SYSMEX AMERICA, Inc
577 Aptakisic Road
Lincolnshire, IL 60069 USA
Phone: 847-996-4500
1-800-3SYSMEX (1-800-379-7639)
- **Emergency telephone number:**
ChemTel Inc.
+1 (800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Liq. 3 H226 Flammable liquid and vapor.
Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H312 Harmful in contact with skin.
Acute Tox. 4 H332 Harmful if inhaled.
STOT SE 2 H371 May cause damage to the central nervous system and optic nerve.
STOT RE 2 H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**

GHS02 GHS07 GHS08
- **Signal word:** Warning

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· Hazard-determining components of labeling:

ethylene glycol
methanol

· Hazard statements:

H226 Flammable liquid and vapor.
H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H371 May cause damage to the central nervous system and optic nerve.
H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

· Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P260 Do not breathe mist/vapors/spray.
P264 Wash thoroughly after handling.
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.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P330 Rinse mouth.
P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.
P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

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



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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

107-21-1	ethylene glycol  STOT RE 2, H373  Acute Tox. 4, H302	>80%
67-56-1	methanol  Flam. Liq. 2, H225  Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331  STOT SE 1, H370	5-<10%

· **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

· **Description of first aid measures**

· **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.
If skin irritation is experienced, consult a doctor.

· **After eye contact:**

Protect unharmed eye.
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Headache
Acidosis
Breathing difficulty
Dizziness
Blindness
Cramp
Nausea in case of ingestion.
Gastric or intestinal disorders when ingested.
Coughing

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Disorientation

· Danger:

May cause damage to the central nervous system and optic nerve.

May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

Danger of disturbed cardiac rhythm.

Danger of convulsion.

Harmful if swallowed, in contact with skin or if inhaled.

· Indication of any immediate medical attention and special treatment needed:

Contains methanol, ethylene glycol. Consult literature for specific antidotes.

Monitor circulation, possible shock treatment.

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

Vapours may cause drowsiness and dizziness.

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:** None.**· Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

· 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.

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.

Ensure adequate ventilation.

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources.

Protect from heat

· Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

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Inform respective authorities in case of seepage into water course or sewage system.

- **Methods and material for containment and cleaning up:**

Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).

Send for recovery or disposal in suitable receptacles.

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:**

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

Prevent formation of aerosols.

Avoid splashes or spray in enclosed areas.

Use only in well ventilated areas.

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

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

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

- **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.

Do not store together with acids.

- **Further information about storage conditions:** Keep containers tightly sealed.

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

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8 Exposure controls/personal protection

· **Control parameters**

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

107-21-1 ethylene glycol

TLV (USA)	Long-term value: NIC-10* mg/m ³ Ceiling limit value: (100) mg/m ³ (H);*as inhalable fraction and vapor
EL (Canada)	Short-term value: 20** mg/m ³ Long-term value: 10** mg/m ³ Ceiling limit value: 100* mg/m ³ , 50*** ppm *Aerosol; **Particulate; ***Vapour
EV (Canada)	Ceiling limit value: 100 mg/m ³
LMPE (Mexico)	Ceiling limit value: 100* mg/m ³ A4, *solo aerosol

67-56-1 methanol

PEL (USA)	Long-term value: 260 mg/m ³ , 200 ppm
REL (USA)	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
TLV (USA)	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm Skin; BEI
EL (Canada)	Short-term value: 250 ppm Long-term value: 200 ppm Skin
EV (Canada)	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
LMPE (Mexico)	Short-term value: 250 ppm Long-term value: 200 ppm PIEL, IBE

· **Ingredients with biological limit values:**

67-56-1 methanol

BEI (USA)	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
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- **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.

Do not inhale gases / fumes / aerosols.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Engineering controls:** No relevant information available.

- **Breathing equipment:**

Not required under normal conditions of use.

Use suitable respiratory protective device when high concentrations are present.

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

For spills, respiratory protection may be advisable.

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.

- **For the permanent contact gloves made of the following materials are suitable:**

PVC gloves

Neoprene gloves

Nitrile rubber, NBR

- **Eye protection:**



Safety glasses

- **Body protection:** Solvent resistant protective clothing

- **Limitation and supervision of exposure into the environment**

No relevant information available.

- **Risk management measures** See Section 7 for additional information.

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9 Physical and chemical properties

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

· **Appearance:**

Form: Viscous liquid.

Color: Blue

· **Odor:** Mild

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Melting point/Melting range:** Not determined.

· **Boiling point/Boiling range:** Not determined.

· **Flash point:** 47 °C (117 °F)

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

· **Auto-ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits**

Lower: Not determined.

Upper: Not determined.

· **Vapor pressure at 20 °C (68 °F):** 0.06 hPa

· **Density:** Not determined.

· **Relative density at 20 °C (68 °F):** 1.09

· **Vapor density at 20 °C (68 °F):** 2.1 g/cm³ (17.525 lbs/gal) (Air= 1)

· **Evaporation rate:** Not determined.

· **Solubility in / Miscibility with**

Water: Soluble.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity**

Dynamic: Not determined.

Kinematic: Not determined.

· **Other information** No relevant information available.

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10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:** Keep away from heat and direct sunlight.
- **Possibility of hazardous reactions:**
 Combustible liquid.
 Toxic fumes may be released if heated above the decomposition point.
 Reacts with strong acids and alkali.
 Reacts with strong oxidizing agents.
 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.
- **Conditions to avoid:**
 Keep ignition sources away - Do not smoke.
 Store away from oxidizing agents.
 Keep away from heat and direct sunlight.
- **Incompatible materials:** No relevant information available.
- **Hazardous decomposition products:**
 Carbon monoxide and carbon dioxide
 Small quantities of formaldehyde may be formed.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Slight irritant effect on skin and mucous membranes.
- **On the eye:** Slight irritant effect on eyes.
- **Sensitization:** No sensitizing effects known.
- **Carcinogenic categories**

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

None of the ingredients are listed.

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

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

None of the ingredients are listed.

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- **Probable route(s) of exposure:**
 - Inhalation.
 - Eye contact.
 - Skin contact.
- **Acute effects (acute toxicity, irritation and corrosivity):**
 - Harmful if swallowed.
 - Harmful in contact with skin.
 - Harmful if inhaled.
 - Vapors have narcotic effect.
- **Repeated dose toxicity:** Repeated exposure may cause skin dryness or cracking.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** May cause damage to the central nervous system and optic nerve.
- **STOT-repeated exposure:**
 - May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
 - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects:** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
 - 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.

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- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT 	<p>NA1993 Reclassified as combustible under US DOT regulations. Labeling is only required for single packages \geq 119 US gal / 450 L to include Combustible symbol and Proper Shipping Name.</p>
<ul style="list-style-type: none"> · ADR, IMDG, IATA 	<p>UN1993</p>

<ul style="list-style-type: none"> · UN proper shipping name · DOT 	<p>COMBUSTIBLE LIQUID, N.O.S (Methanol, ethylene glycol)</p>
<ul style="list-style-type: none"> · ADR 	<p>1993 FLAMMABLE LIQUID, N.O.S. (Methanol, ethylene glycol)</p>
<ul style="list-style-type: none"> · IMDG 	<p>FLAMMABLE LIQUID, N.O.S. (Methanol, ethylene glycol)</p>
<ul style="list-style-type: none"> · IATA 	<p>Flammable liquid, n.o.s. (Methanol, ethylene glycol)</p>

<ul style="list-style-type: none"> · Transport hazard class(es) · DOT 	
	
<ul style="list-style-type: none"> · Class · Label 	<p>3 Combustible liquids 3</p>

<ul style="list-style-type: none"> · ADR 	
	
<ul style="list-style-type: none"> · Class 	<p>3 (F1) Flammable liquids</p>

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· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, ADR, IMDG, IATA	III
· Environmental hazards	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	30
· EMS Number:	F-E,S-E
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 304 (emergency release notification):**

None of the ingredients are listed.

· **Sections 311/312 (hazardous chemical threshold planning quantity in pounds):**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

All ingredients are listed.

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· **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 are listed.

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

67-56-1 | methanol

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

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

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

· **Canadian substance listings**

· **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

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** 04/12/2016 / -

· **Abbreviations and acronyms:**

- ADR: 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
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- DNEL: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic

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vPvB: very Persistent and very Bioaccumulative
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Acute Tox. 3: Acute toxicity, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1
STOT SE 2: Specific target organ toxicity - Single exposure, Hazard Category 2
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Sources

Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers

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