Aerospray TB Reagent C: Auramine Rhodamine

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : Aerospray TB Reagent C: Auramine Rhodamine

Product code : SS-061CAR or SS-061CAR-EU

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Laboratory chemical

1.3. Details of the supplier of the safety data sheet

ELITechGroup Inc.
370 West 1700 South
Logan, UT 84321 - USA
T +1 (435) 752-6011 - F +1 (435) 752-4127
qara_ebs@elitechgroup.com - www.elitechgroup.com

1.4. Emergency telephone number

Emergency number : Contact your distributor or poison control center in your country.
InfoTrac Emergency Response: Calls within the USA, phone: 1-800-535-5053. Calls outside the USA, phone: +1 352-323-3500 (call collect)
Customer ID: #90104 (NOTE: this number is required when a customer calls into either phone number above).

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flam. Liq. 3	H226 -	Flammable liquid and vapor
Skin Corr. 1B	H314 -	Causes severe skin burns and eye damage
Muta. 2	H341 -	Suspected of causing genetic defects
Carc. 2	H351 -	Suspected of causing cancer
STOT RE 2	H373 -	May cause damage to organs through prolonged or repeated exposure
Aquatic Chronic 3	H412 -	Harmful to aquatic life with long lasting effects

Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :

GHS02 GHS05 GHS08

Signal word (GHS US) : Danger

Hazard statements (GHS US) : H226 - Flammable liquid and vapor
H314 - Causes severe skin burns and eye damage
H341 - Suspected of causing genetic defects
H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe mist, spray, vapors.
P264 - Wash hands thoroughly after handling
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection.
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.
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.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 - Get medical advice/attention if you feel unwell.
P370+P378 - In case of fire: Use ABC-powder, alcohol resistant foam, BC-powder, carbon dioxide (CO2), D-powder to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
ethylene glycol	(CAS-No.) 107-21-1	5 – 25	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
phenol, solid	(CAS-No.) 108-95-2	1 – 5	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Corr. 1B, H314 Muta. 2, H341 STOT RE 2, H373
Auramine O	(CAS-No.) 2465-27-2	< 1	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Eye Irrit. 2, H319 Carc. 2, H351
Rhodamine B	(CAS-No.) 81-88-9	< 1	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : Irritation. Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : ABC powder. Alcohol-resistant foam. BC powder. Carbon dioxide. Dry powder. Foam. Water spray.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapor.

Reactivity : Flammable liquid and vapor.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethylene glycol (107-21-1)		
ACGIH	ACGIH TWA (ppm)	25 ppm (Vapor fraction)
ACGIH	ACGIH STEL (mg/m³)	10 mg/m³ (Inhalable fraction, Aerosol only)
ACGIH	ACGIH STEL (ppm)	50 ppm (Vapor fraction)
ACGIH	Remark (ACGIH)	URT & eye irr

phenol, solid (108-95-2)		
ACGIH	ACGIH TWA (ppm)	5 ppm
ACGIH	Remark (ACGIH)	URT irr; lung dam; CNS impair
OSHA	OSHA PEL (TWA) (mg/m³)	19 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	5 ppm

8.2. Exposure controls

Appropriate engineering controls	:	Ensure good ventilation of the work station.
Hand protection	:	Wear protective gloves. Suitable gloves should be tested to EN 374. The glove material has to be impermeable and resistant to the product/the substance/the preparation. As the product is a preparation of several substances, the resistance and penetration time/breakthrough time of the glove material cannot be calculated/observed in advance and, therefore, has to be checked prior to the application. The following are recommended: materials - natural latex or nitrile; thickness - 4 to 6 mils (0.1 mm - 0.15 mm); minimum breakthrough time - 60 minutes.
Eye protection	:	Safety glasses.
Skin and body protection	:	Wear suitable protective clothing.
Respiratory protection	:	Wear respiratory protection.
Environmental exposure controls	:	Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Color	:	Red
Odor	:	Characteristic
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	Not applicable
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	36 (32 – 38) °C
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Vapor pressure	:	No data available
Relative density	:	No data available
Relative vapor density at 20 °C	:	No data available
Solubility	:	Water: No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapor.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

ethylene glycol (107-21-1)	
LD50 oral rat	493.91 mg/kg body weight (Estimated value)
ATE US (oral)	493.91 mg/kg body weight

phenol, solid (108-95-2)	
LD50 oral rat	650 mg/kg (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	660 mg/kg (Equivalent or similar to OECD 402, 24 h, Rat, Female, Experimental value, Dermal, 7 day(s))
ATE US (oral)	650 mg/kg body weight
ATE US (dermal)	660 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h

Auramine O (2465-27-2)	
ATE US (oral)	480 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight

Rhodamine B (81-88-9)	
LD50 oral rat	500 mg/kg (Rat, Oral)
ATE US (oral)	500 mg/kg body weight

Skin corrosion/irritation : Causes severe skin burns.

Serious eye damage/irritation : Assumed to cause serious eye damage

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Suspected of causing genetic defects.

Carcinogenicity : Suspected of causing cancer.

ethylene glycol (107-21-1)	
NOAEL (chronic,oral,animal/male,2 years)	1500 mg/kg body weight Animal: mouse, Animal sex: male, Remarks on results: other:Effect type: carcinogenicity (migrated information)

phenol, solid (108-95-2)	
IARC group	3 - Not classifiable

Rhodamine B (81-88-9)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

phenol, solid (108-95-2)	
LOAEL (dermal,rat/rabbit,90 days)	260 mg/kg body weight Animal: rabbit
NOAEL (dermal,rat/rabbit,90 days)	130 mg/kg body weight Animal: rabbit

Aspiration hazard : Not classified

Symptoms/effects after skin contact : Irritation. Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

ethylene glycol (107-21-1)	
LC50 fish 1	> 72860 mg/l (EPA 600/4-90/027, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 Daphnia 1	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, Daphnia magna, Static system, Fresh water, Experimental value)
NOEC (chronic)	≥ 1000 mg/l Test organisms (species): Americamysis bahia (previous name: Mysidopsis bahia) Duration: '23 d'

phenol, solid (108-95-2)	
LC50 fish 1	8.9 mg/l (US EPA, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	18 (18 – 36) mg/l (48 h; Daphnia pulex)
NOEC (chronic)	0.16 mg/l Test organisms (species): Daphnia magna Duration: '16 d'
NOEC chronic fish	0.077 mg/l Test organisms (species): other:Cirrhina mrigala Duration: '60 d'

Rhodamine B (81-88-9)	
LC50 fish 1	217 mg/l (96 h, Salmo gairdneri)
EC50 Daphnia 1	22.9 mg/l (48 h, Daphnia magna)

12.2. Persistence and degradability

ethylene glycol (107-21-1)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water. Not established.
Biochemical oxygen demand (BOD)	0.47 g O_2/g substance
Chemical oxygen demand (COD)	1.24 g O_2/g substance
ThOD	1.29 g O_2/g substance

phenol, solid (108-95-2)	
Persistence and degradability	Biodegradable in the soil. Inhibits biodegradation processes in the soil. Readily biodegradable in water. Readily biodegradable in water in anaerobic conditions.
Biochemical oxygen demand (BOD)	1.68 g O_2/g substance
Chemical oxygen demand (COD)	2.28 g O_2/g substance
ThOD	2.38 g O_2/g substance

Rhodamine B (81-88-9)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

ethylene glycol (107-21-1)	
Partition coefficient n-octanol/water (Log Pow)	-1.34 (Experimental value)
Bioaccumulative potential	Not bioaccumulative. Not established.

phenol, solid (108-95-2)	
BCF fish 1	17.5 (OECD 305: Bioconcentration: Flow-Through Fish Test, 3 h, Danio rerio, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.47 (Experimental value, Equivalent or similar to OECD 117, 30 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Auramine O (2465-27-2)	
Bioaccumulative potential	No test data of component(s) available.

Rhodamine B (81-88-9)	
BCF fish 1	< 1.7 (Cyprinus carpio, Test duration: 6 weeks)
Partition coefficient n-octanol/water (Log Pow)	1.95 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

ethylene glycol (107-21-1)	
Surface tension	48.4 mN/m (20 °C)

ethylene glycol (107-21-1)	
Ecology - soil	Highly mobile in soil.

phenol, solid (108-95-2)	
Surface tension	71.3 mN/m (20 °C, 0.118 %)
Partition coefficient n-octanol/water (Log Koc)	1.15 – 1.86 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

Auramine O (2465-27-2)	
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1170 Ethyl alcohol solutions, 3, III

UN-No.(DOT) : UN1170

Proper Shipping Name (DOT) : Ethyl alcohol solutions

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid

Packing group (DOT) : III - Minor Danger

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Special Provisions (49 CFR 172.102) : 24 - Alcoholic beverages containing more than 70 percent alcohol by volume must be transported as materials in Packing Group II. Alcoholic beverages containing more than 24 percent but not more than 70 percent alcohol by volume must be transported as materials in Packing Group III.
B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T2 - 1.5 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) : 4b, 150

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

DOT Vessel Stowage Location : A - The material may be stowed ''on deck'' or ''under deck'' on a cargo vessel and on a passenger vessel.

Emergency Response Guide (ERG) Number : 127

Other information : No supplementary information available.

Transportation of Dangerous Goods

No additional information available

Transport by sea

UN-No. (IMDG) : 1170

Proper Shipping Name (IMDG) : ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

Class (IMDG) : 3 - Flammable liquids

Packing group (IMDG) : III - substances presenting low danger

Air transport

UN-No. (IATA) : 1170

Proper Shipping Name (IATA) : Ethanol solution

Class (IATA) : 3 - Flammable Liquids

Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

ethylene glycol (107-21-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a final TSCA section 4 test rule.
CERCLA RQ	5000 lb

phenol, solid (108-95-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	10000 lb 500lb if the substance is solid in powder form with particle size less than 100 microns, or is in solution or molten form
SARA Section 313 - Emission Reporting	1 %

Auramine O (2465-27-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Rhodamine B (81-88-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1 %

15.2. International regulations

CANADA

ethylene glycol (107-21-1)
Listed on the Canadian DSL (Domestic Substances List)

phenol, solid (108-95-2)
Listed on the Canadian DSL (Domestic Substances List)

Auramine O (2465-27-2)
Listed on the Canadian DSL (Domestic Substances List)

Rhodamine B (81-88-9)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

ethylene glycol (107-21-1)
Listed on EPA Hazardous Air Pollutant (HAPS)

phenol, solid (108-95-2)
Listed on EPA Hazardous Air Pollutant (HAPS)

15.3. US State regulations

This product can expose you to Rhodamine B, which is known to the State of California to cause cancer, and ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

ethylene glycol (107-21-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	No	No	8700 µg/day

Rhodamine B (81-88-9)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	
U.S. - California - Proposition 65 - Other information		No NSRL data available at www.P65Warnings.ca.gov		

ethylene glycol (107-21-1)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

phenol, solid (108-95-2)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

Auramine O (2465-27-2)
U.S. - Pennsylvania - RTK (Right to Know) List

Rhodamine B (81-88-9)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases:

H226	Flammable liquid and vapor
H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H341	Suspected of causing genetic defects
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure
H412	Harmful to aquatic life with long lasting effects

SDS US Custom - EBS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Reason For Change: updated to latest GHS format and classifications to meet compliance. Added Prop 65 information to Section 15.