

Gram Stain Set, Stabilized Iodine

PRODUCT AND COMPANY IDENTIFICATION

Product name: Gram Stain Set, Traditional Iodine
Product code: 6250, 6500

Supplier: Astral Diagnostics Inc.
800-441-0366 Technical Service
Monday-Friday: 8:00 -5:00 PM

Synonym: None.
Material uses: Laboratory Reagent.
Validation date: 12/18/2013
In case of emergency: 800-424-9300 CHEMTREC (USA)
24 Hours/Day: 7 Days/Week

This product is a kit which contains the following, see the MSDS for each of the components listed.

Product name: Crystal Violet
Product code: 6251, 6501

Product name: Gram Stain, Iodine, Traditional
Product code: 6252, 6552

Product name: Gram Stain, Decolorizer, 75:25
Product code: 6254, 6504

Product name: Gram Stain, Safranin
Product code: 6256, 6506

Crystal Violet

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Crystal Violet
Product code:	6060A, 6081, 6161, 6251, 6501, 6600, 6928
Supplier:	Astral Diagnostics Inc. 800-441-0366 Technical Service Monday-Friday: 8:00 -5:00 PM
Synonym:	None.
Material uses:	Laboratory Reagent.
Validation date:	12/11/2013
In case of emergency:	800-424-9300 CHEMTREC (USA) 24 Hours/Day: 7 Days/Week

2. HAZARDS IDENTIFICATION

Emergency Overview

GHS Label, Pictogram:



Signal Word: Warning!

Hazard statement(s):

Causes mild skin irritation.
Causes serious eye irritation.
Suspected of causing cancer.
Causes damage to organs.
Toxic to aquatic life with long lasting effects.

Precautionary statement(s):

Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
Avoid release to the environment.
Use personal protective equipment as required.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If exposed: Call a POISON CENTER or doctor/ physician.

Potential Health Effects:

Inhalation - Toxic if inhaled. Causes respiratory tract irritation.
Skin - Toxic if absorbed through skin. Causes skin irritation.
Eyes - Causes eye irritation.
Ingestion - Toxic if swallowed.

HMIS Classification

Health hazard: 1
Flammability: 1
Physical hazards: 0

NFPA Rating

Health hazard: 1
Fire: 1
Reactivity Hazard: 0

Target Organs:

Nerves., Liver, Heart, Eyes, Kidney, Central nervous system

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	% by weight
Methanol	67-56-1	<1
Ethanol	64-17-5	<11
Crystal Violet	17372-87-1	<1
Phenol	108-95-2	<0.5
Water	7732-18-5	<90

4. FIRST AID MEASURES

- Eye contact:** Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact:** In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation:** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion:** Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Flammability of the product: Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Extinguishing media: Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable: Do not use water jet.

Special exposure hazards: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous thermal

decomposition products: Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective

equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special remarks on

explosion hazards: Development of hazardous combustion gases or vapors possible in the event of fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

7. HANDLING AND STORAGE

Handling: Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use empty containers to retain product, residue can be hazardous. Do not reuse container.

Storage: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient	Exposure limits
Ethanol	ACGIH TLV (United States, 3/2012).
	STEL: 1000 ppm 15 minute(s).
	OSHA PEL 1989 (United States, 3/1989).
	TWA: 1900 mg/m ³ 8 hour(s).
	TWA: 1000 ppm 8 hour(s).
	NIOSH REL (United States, 1/2013).
	TWA: 1000 ppm 10 hour(s).
TWA: 1900 mg/m ³ 10 hour(s).	
OSHA PEL (United States, 6/2010).	
TWA: 1000 ppm 8 hour(s).	
TWA: 1900 mg/m ³ 8 hour(s).	

Consult local authorities for acceptable exposure limits.

Engineering measures: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or

dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: neoprene

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.	Color:	Violet/purple
Flash Point:	Not available.	Odor:	Characteristic, alcohol-like.
pH:	Not available.	Boiling/condensation point:	Not available.
Melting/freezing point:	Not available.	Relative density:	Not available.
Vapor pressure:	Not available.	Vapor density:	Not available.
Odor threshold:	Not available.	Evaporation rate:	<11%
VOC:	11.1% (w/w)		
Solubility:	Soluble in the following materials: water		

10. STABILITY AND REACTIVITY

Chemical stability:	The product is stable.
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous polymerization:	Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid:	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Materials to avoid:	Highly reactive or incompatible with the following materials: oxidizing materials and metals. Reactive or incompatible with the following materials: reducing materials, acids.
Hazardous decomposition Products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Conditions of reactivity:	Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials. Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

no data available

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes: no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation Toxic if inhaled. Causes respiratory tract irritation.

Ingestion Toxic if swallowed.

Skin Toxic if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT (US)

Not Regulated.

15. REGULATORY INFORMATION

United States

HCS Classification: Flammable liquid, Highly toxic material, Irritating material, Target organ effects

U.S. Federal regulations: United States inventory (TSCA 8b):

TSCA 8(d) H and S data reporting: Phenol: 1987

TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Ethyl Alcohol

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Ethyl Alcohol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: Phenol

Clean Water Act (CWA) 311: Phenol

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

DEA List I & II Chemicals

(Precursor Chemicals) : Not listed

Connecticut Carcinogen Reporting:

None of the components are listed.

Connecticut Hazardous Material Survey:

None of the components are listed.

Florida substances:

None of the components are listed.

Illinois Chemical Safety Act:

None of the components are listed.

Illinois Toxic Substances

Disclosure to Employee Act:

None of the components are listed.

Louisiana Spill:

None of the components are listed.

Louisiana Reporting:

None of the components are listed.

Massachusetts Spill:

None of the components are listed.

Massachusetts Substances:

The following components are listed: Ethyl Alcohol

Minnesota Hazardous Substances:

None of the components are listed.

Michigan Critical Material:

None of the components are listed.

New Jersey Toxic Catastrophe Prevention Act:

None of the components are listed.

New Jersey Spill:

None of the components are listed.

New Jersey Hazardous Substances:

The following components are listed: Ethyl Alcohol

New York Toxic Chemical Release Reporting:

None of the components are listed.

New York Acutely Hazardous Substances:

None of the components are listed.

Pennsylvania RTK Hazardous Substances:

The following components are listed: Ethyl Alcohol

Rhode Island Hazardous Substances:

None of the components are listed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

<u>Ingredient name</u>	<u>Cancer</u>	<u>Reproductive level</u>	<u>No significant risk level</u>	<u>Maximum acceptable dosage</u>
Methanol	No.	Yes.	No.	No.

CANADA

WHMIS (Canada):

Class B-2: Flammable liquid

Class D-1B: Material causing immediate and serious toxic effects (Toxic).

Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists:

CEPA Toxic substances: None of the components are listed.

Canadian ARET: None of the components are listed.

Canadian NPRI: The following components are listed: Ethyl Alcohol

Alberta Designated Substances: None of the components are listed.

Ontario Designated Substances: None of the components are listed.

Quebec Designated Substances: None of the components are listed.

CEPA DSL / CEPA NDSL:

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists:

Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): Not determined.

Japan inventory: All components are listed or exempted.

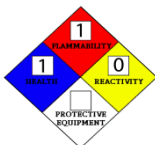
Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): Not determined.

Philippines inventory (PICCS): All components are listed or exempted.

16. OTHER INFORMATION

National Fire Protection Association (U.S.A.)



Notice to reader

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Astral Diagnostics Inc. shall not be liable for any damage resulting from handling of contact with this product.



Safety Data Sheet

Gram Iodine, Traditional

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Gram Stain, Iodine, Traditional
Product code: 6250, 6252, 6500, 6502

Supplier: Astral Diagnostics Inc.
800-441-0366 Technical Service
Monday-Friday: 8:00 -5:00 PM

Synonym: None.
Material uses: Laboratory Reagent.
Validation date: 12/17/2013
In case of emergency: 800-424-9300 CHEMTREC (USA)
24 Hours/Day: 7 Days/Week

2. HAZARDS IDENTIFICATION

Emergency Overview
GHS Label, Pictogram;



Signal Word: Warning!

GHS Classification

Skin sensitization (Category 1), Acute aquatic toxicity (Category 3)

Hazard statement(s) :

May cause an allergic skin reaction.
Harmful to aquatic life.

Precautionary statement(s):

Wear protective gloves.

HMIS Classification

Health hazard: 0

Chronic Health Hazard: *

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation - Toxic if inhaled. Causes respiratory tract irritation.

Skin - Toxic if absorbed through skin. Causes skin irritation.

Eyes - Causes eye irritation.

Ingestion - Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	% by weight
Iodine	7553-56-2	<4
Potassium Iodide	7681-11-0	<7
Water	7732-18-5	<100

4. FIRST AID MEASURES

- Eye contact:** Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact:** In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation:** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion:** Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Flammability of the product: In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Not suitable: None Known.

Special exposure hazards: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk.

Hazardous thermal decomposition products: No specific data.

Special protective

equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Spill: Stop leak if without risk. Move containers from spill area. Approach release from

upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

7. HANDLING AND STORAGE

- Handling:** Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage:** Store in accordance with local regulations. Store in original container, protected from direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult local authorities for acceptable exposure limits.

- Engineering measures:** No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Respiratory:** Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands:** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: neoprene
- Eyes:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles
- Skin:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat
- Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

- | | | | |
|------------------------|----------------|---------------|----------------|
| Physical state: | Liquid. | Color: | Reddish-brown. |
| Flash Point: | Not available. | Odor: | Faint odor. |

pH:	Not available.	Boiling/condensation point:	Not available.
Melting/freezing point:	Not available.	Relative density:	Not available.
Vapor pressure:	Not available.	Vapor density:	Not available.
Odor threshold:	Not available.	Evaporation rate:	Not available.
VOC:	0% (w/w)		
Solubility:	Soluble in the following materials: water		

10. STABILITY AND REACTIVITY

Chemical stability:	The product is stable.
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous polymerization:	Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid:	No specific data.
Hazardous decomposition products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

no data available

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes: no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation Toxic if inhaled. Causes respiratory tract irritation.

Ingestion Toxic if swallowed.

Skin Toxic if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation.

Signs and Symptoms of Exposure

Prolonged exposure to iodides may produce iodism in sensitive individuals. Symptoms of exposure include: skin rash, running nose, headache and irritation of the mucous membrane. For severe cases the skin may show pimples, boils, hives, blisters and black and blue spots. Iodides are readily diffused across the placenta. Neonatal deaths from respiratory distress secondary to goiter have been reported. Iodides have been known to cause drug-induced fevers, which are usually of short duration., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION**DOT (US)**

Not Regulated.

15. REGULATORY INFORMATION**United States**

HCS Classification: Irritating material

U.S. Federal regulations: United States inventory (TSCA 8b):**TSCA 8(d) H and S data reporting:**

TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.

SARA 302/304/311/312 extremely hazardous substances: No products found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

No products were found.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

DEA List I & II Chemicals

(Precursor Chemicals) : Not listed

Connecticut Carcinogen Reporting: None of the components are listed.

Connecticut Hazardous Material Survey: None of the components are listed.

Florida substances: None of the components are listed.

Illinois Chemical Safety Act: None of the components are listed.

Illinois Toxic Substances

Disclosure to Employee Act: None of the components are listed.

Louisiana Spill: None of the components are listed.

Louisiana Reporting: None of the components are listed.

Massachusetts Spill: None of the components are listed.

Massachusetts Substances: None of the components are listed.

Minnesota Hazardous Substances: None of the components are listed.

Michigan Critical Material: None of the components are listed.

NJ Toxic Catastrophe Prevention Act:	None of the components are listed.
New Jersey Spill:	None of the components are listed.
New Jersey Hazardous Substances:	None of the components are listed.
NY Toxic Chemical Release Reporting:	None of the components are listed.
New York Acutely Hazardous Substances:	None of the components are listed.
Pennsylvania RTK Hazardous Substances:	None of the components are listed.
Rhode Island Hazardous Substances:	None of the components are listed.
CANADA	
WHMIS (Canada):	Not controlled under WHMIS (Canada)
Canadian lists:	CEPA Toxic substances: None of the components are listed. Canadian ARET: None of the components are listed. Canadian NPRI: None of the components are listed. Alberta Designated Substances: None of the components are listed. Ontario Designated Substances: None of the components are listed. Quebec Designated Substances: None of the components are listed.

CEPA DSL / CEPA NDSL: All components are listed or exempted.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

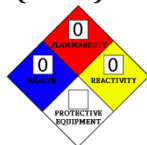
International regulations

International lists:

- Australia inventory (AICS):** All components are listed or exempted.
- China inventory (IECSC):** Not determined.
- Japan inventory:** Not determined.
- Korea inventory:** All components are listed or exempted.
- New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- Philippines inventory (PICCS):** All components are listed or exempted.

16. OTHER INFORMATION

National Fire Protection Association (U.S.A.)



Notice to reader

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Astral Diagnostics Inc. shall not be liable for any damage resulting from handling of contact with this product.



Safety Data Sheet

Gram Decolorizer, 75:25

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Gram Decolorizer, 75:25
Product code: 6060, 6084, 6164, 6250, 6254, 6500, 6504, 6600, 6931

Supplier: Astral Diagnostics Inc.
800-441-0366 Technical Service
Monday-Friday: 8:00 -5:00 PM

Synonym: None.
Material uses: Laboratory Reagent.
Validation date: 12/11/2013
In case of emergency: 800-424-9300 CHEMTREC (USA)
24 Hours/Day: 7 Days/Week

2. HAZARDS IDENTIFICATION

Emergency Overview
GHS Label, Pictogram:



Safety Word: Danger!

Hazard statement(s):
Highly flammable liquid and vapor.

Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation, and drowsiness or dizziness.
Repeated exposure may cause skin dryness or cracking.

Precautionary statement(s):

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

OSHA Hazards

Flammable liquid, Target Organ Effect, Irritant, Toxic by skin absorption, Carcinogen

Target Organs

Liver, Kidney, Nerves, Heart

GHS Classification

Flammable liquids (Category 2), Skin irritation (Category 2), Eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3)

HMIS Classification

Health hazard: 1
Flammability: 3
Physical hazards: 0

NFPA Rating

Health hazard: 1
Fire: 3
Reactivity Hazard: 0

Potential Health Effects

Inhalation - Toxic if inhaled. Causes respiratory tract irritation.
Skin - Toxic if absorbed through skin. Causes skin irritation.
Eyes - Causes eye irritation.
Ingestion - Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	% by weight
Ethanol	64-17-5	<75
Methanol	67-56-1	<4
Acetone	67-64-1	25

4. FIRST AID MEASURES

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact: In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion: Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Flammability of the product: Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst with the risk of a subsequent explosion. Run-off to sewer may create fire or explosion hazard.

Extinguishing media: Use dry chemical, CO2, water spray (fog) or foam.

Not suitable: Do not use water jet.

Special exposure hazards: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable

training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous thermal

decomposition products: Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective

equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special remarks on

explosion hazards: Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

7. HANDLING AND STORAGE

Handling: Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use empty containers to retain product, residue can be hazardous. Do not reuse container.

Storage: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient
Methanol

Exposure limits

ACGIH TLV (United States, 3/2012). Absorbed through skin.

TWA: 200 ppm 8 hour(s).

TWA: 262 mg/m³ 8 hour(s).

STEL: 250 ppm 15 minute(s).

STEL: 328 mg/m³ 15 minute(s).

OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.

TWA: 200 ppm 8 hour(s).

TWA: 260 mg/m³ 8 hour(s).

STEL: 250 ppm 15 minute(s).

STEL: 325 mg/m³ 15 minute(s).

NIOSH REL (United States, 1/2013). Absorbed through skin.

TWA: 200 ppm 10 hour(s).

TWA: 260 mg/m³ 10 hour(s).

STEL: 250 ppm 15 minute(s).

STEL: 325 mg/m³ 15 minute(s).

OSHA PEL (United States, 6/2010).

TWA: 200 ppm 8 hour(s).

TWA: 260 mg/m³ 8 hour(s).

Ethanol

ACGIH TLV (United States, 3/2012).

STEL: 1000 ppm 15 minute(s).

OSHA PEL 1989 (United States, 3/1989).

TWA: 1900 mg/m³ 8 hour(s).

TWA: 1000 ppm 8 hour(s).

NIOSH REL (United States, 1/2013).

TWA: 1000 ppm 10 hour(s).

TWA: 1900 mg/m³ 10 hour(s).

OSHA PEL (United States, 6/2010).

TWA: 1000 ppm 8 hour(s).

TWA: 1900 mg/m³ 8 hour(s).

Acetone

ACGIH (United States, 1996).

STEL: 1782 mg/m³ 15 minute(s).

TWA: 1188 mg/m³ 8 hour(s).

OSHA (United States, 1989).

STEL: 2400 mg/m³ 15 minute(s).

TWA: 1800 mg/m³ 8 hour(s).

ACGIH TLV (United States, 3/2012).

TWA: 500 ppm 8 hour(s).

TWA: 1188 mg/m³ 8 hour(s).

STEL: 750 ppm 15 minute(s).

STEL: 1782 mg/m³ 15 minute(s).

OSHA PEL 1989 (United States, 3/1989).

TWA: 750 ppm 8 hour(s).

TWA: 1800 mg/m³ 8 hour(s).

STEL: 1000 ppm 15 minute(s).

STEL: 2400 mg/m³ 15 minute(s).

NIOSH REL (United States, 1/2013).

TWA: 250 ppm 10 hour(s).

TWA: 590 mg/m³ 10 hour(s).

OSHA PEL (United States, 6/2010).

TWA: 1000 ppm 8 hour(s).

TWA: 2400 mg/m³ 8 hour(s).

Consult local authorities for acceptable exposure limits.

Engineering measures:

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated

clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory:

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: neoprene

Eyes:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles

Skin:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.	Color:	Clear
Flash Point:	Closed cup: 11.667°C (53°F)	Odor:	Characteristic.
pH:	Not available.	Boiling/condensation point:	Not available.
Melting/freezing point:	Not available.	Relative density:	Not available.
Vapor pressure:	Not available.	Vapor density:	Not available.
Odor threshold:	Not available.	Evaporation rate:	Not available.
VOC:	100 % (w/w)		
Solubility:	Soluble in the following materials: water		

10. STABILITY AND REACTIVITY

Chemical stability: The product is stable.

Possibility of hazardous reactions:

Under normal conditions of storage and use, hazardous reactions will not occur.

Hazardous polymerization: Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Materials to avoid: Highly reactive or incompatible with the following materials: oxidizing materials. Reactive or incompatible with the following materials: metals and acids.

Hazardous decomposition products:

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

Conditions of reactivity: Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials. Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials. Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

no data available

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes: no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation Toxic if inhaled. Causes respiratory tract irritation.

Ingestion Toxic if swallowed.

Skin Toxic if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION**Toxicity**

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION**DOT (US)**

UN number: 1993 Class: 3 Packing group: II

Proper shipping name: Flammable liquids, n.o.s. (Ethanol, Acetone)

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG

UN number: 1993 Class: 3 Packing group: II EMS-No: F-E, S-E
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethanol, Acetone)
Marine pollutant: No

IATA

UN number: 1993 Class: 3 (6.1) Packing group: II
Proper shipping name: Flammable liquid, n.o.s. (Ethanol, Acetone)

TDG

UN No: 1993 Class 3 (6.1) Packing Group II
Proper Shipping Name FLAMMABLE LIQUID, N.O.S. (Ethanol, Acetone)

15. REGULATORY INFORMATION

United States

HCS Classification: Flammable liquid
Toxic material
Irritating material
Target organ effects

U.S. Federal regulations: TSCA 8(a) IUR: Partial exemption

United States inventory (TSCA 8b): TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Acetone; Ethyl Alcohol; Methanol

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Acetone: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard;

Methanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health

Hazard.

Ethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

DEA List I Chemicals (Precursor Chemicals): Not listed

DEA List II Chemicals (Essential Chemicals): Listed

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting Requirements:	Methanol	67-56-1	99 - 100
Supplier notification:	Methanol	67-56-1	99 - 100

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

Connecticut Carcinogen Reporting: None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.
Florida substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.
Louisiana Spill: None of the components are listed.
Louisiana Reporting: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: The following components are listed: Ethyl Alcohol; Methanol; Acetone
Minnesota Hazardous Substances: None of the components are listed.
Michigan Critical Material: None of the components are listed.
NJ Toxic Catastrophe Prevention Act: None of the components are listed.
New Jersey Spill: None of the components are listed.
New Jersey Hazardous Substances: The following components are listed: Ethyl Alcohol; Methanol; Acetone
NY Toxic Chemical Release Reporting: None of the components are listed.
New York Acutely Hazardous Substances: The following components are listed: Methanol; Acetone

Pennsylvania RTK Hazardous Substances: The following components are listed: Ethyl Alcohol; Methanol; Acetone
Rhode Island Hazardous Substances: None of the components are listed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

<u>Ingredient name</u>	<u>Cancer</u>	<u>Reproductive level</u>	<u>No significant risk level</u>	<u>Maximum acceptable dosage</u>
Methanol	No.	Yes.	No.	No.

CANADA

WHMIS (Canada):

Class B-2: Flammable liquid

Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists:

CEPA Toxic substances: The following components are listed: Volatile Organic compounds

Canadian ARET: None of the components are listed.

Canadian NPRI: The following components are listed: Ethanol; Methanol; Volatile organic compounds

Alberta Designated Substances: None of the components are listed.

Ontario Designated Substances: None of the components are listed.

Quebec Designated Substances: None of the components are listed.

CEPA DSL / CEPA NDSL:

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists:

Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Japan inventory: All components are listed or exempted.

Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

16. OTHER INFORMATION

National Fire Protection Association (U.S.A.)



Notice to reader

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Astral Diagnostics Inc. shall not be liable for any damage resulting from handling of contact with this product.



Safety Data Sheet

Gram Safranin

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Safranin
Product code: 6086, 6166, 6256, 6506, 6933

Supplier: Astral Diagnostics Inc.
800-441-0366 Technical Service
Monday-Friday: 8:00 -5:00 PM

Synonym: None.
Material uses: Laboratory Reagent.
Validation date: 12/11/2013
In case of emergency: 800-424-9300 CHEMTREC (USA)
24 Hours/Day: 7 Days/Week

2. HAZARDS IDENTIFICATION

Emergency Overview
GHS Label, Pictogram



Signal Word: Warning

Hazard statement(s):
Causes mild skin irritation.
Causes serious eye irritation.
Suspected of causing cancer.
Causes damage to organs.
Toxic to aquatic life with long lasting effects.

Precautionary statement(s):

Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

Avoid release to the environment.

Use personal protective equipment as required.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If exposed: Call a POISON CENTER or doctor/ physician.

Potential Health Effects:

Inhalation - Toxic if inhaled. Causes respiratory tract irritation.

Skin - Toxic if absorbed through skin. Causes skin irritation.

Eyes - Causes eye irritation.

Ingestion - Toxic if swallowed.

HMIS Classification

Health hazard: 1

Flammability: 1

Physical hazards: 0

NFPA Rating

Health hazard: 1

Fire: 1

Reactivity Hazard: 0

Target Organs:

Nerves., Liver, Heart, Eyes, Kidney, Central nervous system

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	% by weight
Methanol	67-56-1	<1
Ethanol	64-17-5	<18
Safranin O	477-73-6	<1
Water	7732-18-5	<82

4. FIRST AID MEASURES

Eye contact:	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin contact:	In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
Inhalation:	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Ingestion:	Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Flammability of the product:	Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
Extinguishing media:	Use dry chemical, CO ₂ , water spray (fog) or foam.
Not suitable:	Do not use water jet.
Special exposure hazards:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Hazardous thermal decomposition products:	Decomposition products may include the following materials:

carbon dioxide
carbon monoxide

Special protective

equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special remarks on

explosion hazards:

Development of hazardous combustion gases or vapors possible in the event of fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

7. HANDLING AND STORAGE

Handling: Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use empty containers to retain product, residue can be hazardous. Do not reuse container.

Storage: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient
Ethanol

Exposure limits

ACGIH TLV (United States, 3/2012).

STEL: 1000 ppm 15 minute(s).

OSHA PEL 1989 (United States, 3/1989).

TWA: 1900 mg/m³ 8 hour(s).

TWA: 1000 ppm 8 hour(s).

NIOSH REL (United States, 1/2013).

TWA: 1000 ppm 10 hour(s).

TWA: 1900 mg/m³ 10 hour(s).
OSHA PEL (United States, 6/2010).
 TWA: 1000 ppm 8 hour(s).
 TWA: 1900 mg/m³ 8 hour(s).

Consult local authorities for acceptable exposure limits.

- Engineering measures:** Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Respiratory:** Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands:** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: neoprene
- Eyes:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles
- Skin:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat
- Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.	Color:	Reddish/maroon
Flash Point:	Not available.	Odor:	Characteristic, slight alcoholic
pH:	6.0	Boiling/condensation point:	Not available.
Melting/freezing point:	Not available.	Relative density:	Not available.
Vapor pressure:	Not available.	Vapor density:	Not available.
Odor threshold:	Not available.	Evaporation rate:	<20%
VOC:	~20% (w/w)		
Solubility:	Soluble in the following materials: water		

10. STABILITY AND REACTIVITY

- Chemical stability:** The product is stable.
- Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.
- Hazardous polymerization:** Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid:** Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- Materials to avoid:** Highly reactive or incompatible with the following materials: oxidizing materials and metals. Reactive or incompatible with the following materials: reducing materials, acids.

Hazardous decomposition

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

Conditions of reactivity: Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials. Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

no data available

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes: no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation Toxic if inhaled. Causes respiratory tract irritation.

Ingestion Toxic if swallowed.

Skin Toxic if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT (US)

Not Regulated.

15. REGULATORY INFORMATION

United States

HCS Classification: Flammable liquid, toxic material, Irritating material, Target organ effects

U.S. Federal regulations: United States inventory (TSCA 8b):

TSCA 8(d) H and S data reporting:

TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Ethyl Alcohol

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Ethyl Alcohol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307:

Clean Water Act (CWA) 311:

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

DEA List I & II Chemicals

(Precursor Chemicals): Not listed

Connecticut Carcinogen Reporting:	None of the components are listed.
Connecticut Hazardous Material Survey:	None of the components are listed.
Florida substances:	None of the components are listed.
Illinois Chemical Safety Act:	None of the components are listed.
Illinois Toxic Substances	
Disclosure to Employee Act:	None of the components are listed.
Louisiana Spill:	None of the components are listed.
Louisiana Reporting:	None of the components are listed.
Massachusetts Spill:	None of the components are listed.
Massachusetts Substances:	The following components are listed: Ethyl Alcohol
Minnesota Hazardous Substances:	None of the components are listed.
Michigan Critical Material:	None of the components are listed.
New Jersey Toxic Catastrophe Prevention Act:	None of the components are listed.
New Jersey Spill:	None of the components are listed.
New Jersey Hazardous Substances:	The following components are listed: Ethyl Alcohol
New York Toxic Chemical Release Reporting:	None of the components are listed.
New York Acutely Hazardous Substances:	None of the components are listed.
Pennsylvania RTK Hazardous Substances:	The following components are listed: Ethyl Alcohol
Rhode Island Hazardous Substances:	None of the components are listed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

<u>Ingredient name</u>	<u>Cancer</u>	<u>Reproductive level</u>	<u>No significant risk level</u>	<u>Maximum acceptable dosage</u>
Methanol	No.	Yes.	No.	No.

CANADA

WHMIS (Canada):

Class B-2: Flammable liquid

Class D-1B: Material causing immediate and serious toxic effects (Toxic).

Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists:

CEPA Toxic substances: None of the components are listed.

Canadian ARET: None of the components are listed.

Canadian NPRI: The following components are listed: Ethyl Alcohol

Alberta Designated Substances: None of the components are listed.

Ontario Designated Substances: None of the components are listed.

Quebec Designated Substances: None of the components are listed.

CEPA DSL / CEPA NDSL:

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists:

Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): Not determined.

Japan inventory: All components are listed or exempted.

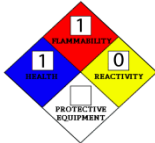
Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): Not determined.

Philippines inventory (PICCS): All components are listed or exempted.

16. OTHER INFORMATION

National Fire Protection Association (U.S.A.)



Notice to reader

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Astral Diagnostics Inc. shall not be liable for any damage resulting from handling of contact with this product.