SP400 Gram Stain Kit

Material Safety Data Sheet

This product is comprised of 4 components each of which have separate Safety Data Sheets following to form this MSDS.

The kit components are: Gram Crystal Violet

Gram Iodine

Gram Differentiator

Gram Counterstain (Safranine / Fuchsin/Neutral Red)

Gram crystal violet

1 Identification of substance

2 Composition/data on components

Hazardous components details: Essentially non-hazardous

3 Hazards identification

No real risk in normal usage.

Environment: No real risk in the quantities supplied in this kit product.

4 First aid measures

EYES - Irritation possible and discolouration from the dyes. If

in contact flood eyes with eye bath for 5-10

minutes, opening upper and lower eye-lids. Seek medical attention for all eye injuries from chemicals.

SKIN - Irritation possible in sensitive individuals and discolouration from the dyes and phenol. If irritation

or other symptoms persist, seek medical attention.

INGESTION - Maybe harmful if ingested.

If ingested wash out mouth with running water and seek emergency medical advice on what treatment to

give.

INHALATION - No real risk in normal usage.

5 Fire fighting measures

Extinguishing Media- Use water spray, fog, or alcohol resistant foam.

Special Hazards- Although this reagent contains a small amount of glycols < 30% It is combustible but not

classified Flammable.

6 Accidental release meaures

Person-related safety precautions:

It is always wise to use such reagents in an efficient fume hood. Wear appropriate protective equipment, impervious gloves etc. Keep unprotected persons away.

Ensure adequate ventilation Keep away from ignition sources

Measures for environmental protection:

In the kit quantities provided release to public sewer is acceptable.

Do not allow material in quantity to be released to the environment without proper governmental permits. Measures for cleaning/collecting:

Absorb with cloth or absorbent granules for further disposal.

Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation.

7 Handling procedures

Handling

Information for safe handling:

Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Keep out of direct sunlight. Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: Keep away from sources of ignition.

Storage

Requirements to be met by storerooms and containers: Unsuitable material for container: none. Store in cool location out of direct sunlight. Store in a locked cabinet or with access restricted to technical experts or their assistants

Information about storage in one common storage facility: Do not store together with oxidizing materials.

8 Exposure controls and personal protection

Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with critical values that require monitoring at the workplace: None

Personal protective equipment

We advise that this product be used only in an efficient fume hood or a very well ventilated place. General protective and hygiene measures. The usual precautionary measures should be adhered to in handling any chemical product. Do not consume. Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Store protective clothing separately. Avoid contact with the eyes and skin.

Breathing equipment: Will be required if this reagent is used hot or in a poorly ventilated place.

Protection of hands: Impervious gloves

Eye protection - Safety glasses - Face protection

Body protection: Protective work clothing and organic vapour/particle face mask depending on situation of use.

9 PHYSICAL & CHEMICAL PROPERTIES

Form: Liquid Colour: Purple Smell: Glycolic

Melting point/Melting range: N/A
Boiling point/Boiling range: >100 C

Flash point: Not determined
Inflammability (liquid, gaseous) Not (but combustible)
Ignition temperature: Not determined
Decomposition temperature: Not determined

Danger of explosion: Product is not explosive. However, formation of explosive air/steam mixtures is

Possible.

Critical values for explosion: Lower: N/A N/A Upper:

Steam pressure at 20 ° C N/A

Density at 20 ° C 1.05 g /ml

Solubility in/Miscibility with Water: Fully miscible

10 Stability & reactivity

Avoid sources of ignition – product is not flammable but is combustible.

Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.

Materials to be avoided:

Oxidizing agents

Alkali metals

Dangerous reactions: No dangerous reactions known.

Dangerous products of decomposition: Carbon monoxide and carbon dioxide.

11 Toxicological information

None - essentially non toxic

12 Ecological information

No data available – product is considered non-toxic in the kit quantities supplied

13 Disposal considerationa

Product:

Recommendation - Consult state, local or national regulations for proper disposal. Small quantities on a lab scale maybe disposed of to the public sewer diluting greatly with water. Hand over larger amounts to licensed disposers of hazardous waste.

Uncleaned packagings:

Recommendation: If still full dispose of through a waste disposal contractor if empty, rinse with water and dispose of as shown below.

Cleaned packaging: Recyled as Polyethylene (PE)

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic) Air Transport IATA. Sea Transport IMDG.

Not regulated for transport.

15 Regulatory information

H302+312 Harmful if swallowed, by skin contact.

P260 Do Not breathe vapour. Keep container tightly closed.

P262 Do not get in eyes, skin, clothing. IF SWALLOWED - rinse mouth with water, seek urgent medical attention. IF INHALED - move to

IF ON SKIN or in EYES - rinse with soap and water and apply eye bath. P314 Get medical attention if you feel unwell.

National regulations

clear air zone

Information about limitation of use: For use only by technically qualified individuals.

Employment restrictions concerning young persons must be observed.

1 Identification of substance (hazardous details)

Gram Iodine

Product details: Iodine < 2% in an aqueous solvent system polymer stabilised.

Manufacturer/Supplier:

GCC Diagnostics / Gainland Chemical Company. Factory Road. Sandycroft. Deeside. Flintshire. UK. CH5 2QJ. Tel: 01244 53 63 26. Fax: 01244 53 12 54. Emergency Phone: 01244 53 63 26 Web Site: www.gccdiagnostics.com.

Informing department: Product safety department.

Emergency information:

During normal hours the Health, Safety and Environmental Department.

2 Composition/Data on components:

Chemical characterization::

Iodine <2% / Water >95%

Intentional mixture

3 Hazards identification:

Maybe irritant to eyes/skin and by inhalation.

4 First aid measures

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. Seek immediate medical advice.

After skin contact Instantly wash with water and soap and rinse thoroughly. Seek immediate medical advice.

After eye contact Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing Seek immediate medical advice.

5 Fire fighting measures:

Suitable extinguishing agents – all means available.

Hazardous vapours that can be released in case of fire: Oxides of iodine

Protective equipment:

Wear suitable skin and eye protection when in use. Do not breathe vapour. Use in a well ventilated area or in an efficient fume hood.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Measures for environmental protection: Do not allow material to be released to the environment.

Measures for cleaning/collecting: Absorb with cloths or liquid-binding materials.

Ensure adequate ventilation.

Wash area to public sewer with water.

Additional information:

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

7 Handling and storage

Handling

Information for safe handling: Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: None required

Storage

Requirements to be met by storerooms and containers: Store in cool location away from sources of ignition. Information about storage in one common storage facility: None

Further information about storage conditions: Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.

8 Exposure controls and personal protection

Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Additional information: No data

Personal protective equipment

General protective and hygienic measures The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work.

Breathing equipment: Use breathing protection with high concentrations.

Protection of hands: Impervious gloves

Eye protection: Safety glasses Face

protection

Body protection: Protective work clothing.

9 Physical and chemical properties: Form: Liquid

Colour: Brown

Smell: lodic

Value/Range Unit Method

Change in condition

Melting point/Melting range: N/A

Boiling point/Boiling range: 100 C

Sublimation temperature / start: Not determined

Flash point: None

Ignition temperature: Not determined

Decomposition temperature: Not determined

Danger of explosion:

Product is not explosive. However, formation of explosive air/steam mixtures is possible.

Critical values for explosion:

Lower: Not determined

Upper: Not determined

Steam pressure: Not determined

Density at 20 ° C 1.05 g/ml

Solubility in / Miscibility with

Water: Fully miscible

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Materials to be avoided:

Alkali metals

Dangerous reactions: Not known

Dangerous products of decomposition: lodine oxides.

11 Toxicological information

Harmful by ingestion / eye contact.

Primary irritant effect: on the skin:Stain

on the eye: Irritant effect.

Sensitization: No sensitizing effect known.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. ACGIH A4: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of it's carcinogenicity in humans and/or animals.

12 Ecological information

General notes:

Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

Recommendation

In the quantities supplied and in normal usage. Disposal to public sewer diluting greatly with water is recommended. Consult state, local or national regulations for proper disposal.

Packagings:

Recommendation: Rinse with water to drain and recycle as PE.

Recommended cleaning agent: Water and surfactant.

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic) Air – IATA. Sea – IMO

Not regulated for transport.

15 Regulatory information

Designation according to EC guidelines:

H302+312+332 Harmful if swallowed, by skin contact and inhalation. P260 Do Not breathe fumes. Keep container tightly closed P262 Do not get in eyes, skin, clothing. IF SWALLOWED - rinse mouth with water, seek urgent medical attention. IF INHALED – move to clear air zone. IF ON SKIN or in EYES - rinse with soap and water and apply eye bath. P314 Get medical attention if you feel unwell.

National regulations

Information about limitation of use:

For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed.

1 Identification of substance

Gram Differentiator

CAS: 7220-79-3

Manufacturered and supplied by Gainland Chemical Co(GCC Diagnostics). Factory Rd. Sandycroft. Deeside.

Flintshire. UK CH5 2QJ Tel: 01244536326 Fx 01244531254 email Gainland@btconnect.com

2 Compostion information

Hazardous components detailed Acetone >40% Propanol >50 %

3 Hazards identification

Hazard designation: F Highly flammable

Information pertaining to particular dangers for man and environment Highly flammable liquid

Harmful in contact with eyes and if swallowed or inhaled.

4 First aid measures

EYES - If in contact flood eyes with eye bath for 5-10 minutes, opening upper and lower eye-lids. Seek medical

attention for all eye injuries from chemicals.

SKIN - If in contact with any part of the body, wash with plenty of soap and water . If irritation or other symptoms

persist, seek medical attention.

INGESTION - Swallowing these substances may cause irritation .

If ingested wash out mouth with running water and seek emergency medical advice on what treatment to

give.

INHALATION - Same as for ingestion..

5 Firefighting measures

Extinguishing Media - Any media.

Special Hazards - Will form explosive mixtures with air in the vapour phase.

Further information - 0044 1244 53 63 26

6 Accidental release measures

Person-related safety precautions:

Wear appropriate protective equipment, impervious gloves etc. skin and eye protection.

Measures for environmental protection:

Do not allow deliberate release to the environment without proper government permits. In normal use there is no real risk to the environment.

7 Handling procedures

Handling

Information for safe handling:

Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Keep out of direct sunlight.

Information about protection against explosions and fires: N/A.

Storage

Requirements to be met by storerooms and containers: Unsuitable material for container: none. Store in cool location, out of direct sunlight. Store in a locked cabinet or with access restricted to technical experts or their assistants. Store where static electricity build up can be discharged and / or avoided.

Information about storage in one common storage facility: Away from strong oxidising agents.

8 Exposure control and personal protection

Components with critical values that require monitoring at the workplace:

Isopropyl alcohol (2-Propanol) ppm ACGIH TLV 400; 500-STEL Belgium TWA 400; 500-STEL Denmark TWA 200 (skin) France TWA 400

Germany TWA 200

Ireland TWA 400; 500-STEL (skin)

Netherlands TWA 250
Russia TWA 400-STEL
Sweden TWA 150; 250-STEL
Switzerland TWA 400; 800-STEL

United Kingdom TWA 400; 500-STEL OSHA PEL 400

Acetone

ppm

ACGIH TLV 500, 750 STEL Belgium TWA 750, 1000 STEL

France TWA 750 Germany TWA 500 Netherlands TWA 750 Switzerland TWA 750

United Kingdom TWA 750, 1500 STEL

Russia TWA 200 Denmark TWA 250

Finland TWA 500, 625 STEL

Hungary TWA 600 mg/m3, STEL 1200 mg/m3

Poland TWA 200 mg/m3 Sweden TWA 250, 500 STEL

USA PEL 1000 Exposure limits have not been determined.

Personal protective equipment

General protective and hygiene measures. The usual precautionary measures should be adhered to in handling any chemical product. Do not consume. Keep away from foodstuffs, beverages and food. Do not smoke. Keep away from sources of ignition.

Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Store protective clothing separately. Avoid contact with the eyes and skin.

Breathing equipment: Essential if vapour build-up is likely. Use under ventilated hood.

Protection of hands: Impervious gloves

Eye protection - Safety goggles or Full - Face protection . Body protection:

Protective work clothing .

9 Physical and chemical properties

Form: Liquid Colour: Clear

Smell: Characteristic – ketones

N/A Melting point/Melting range:

Boiling point/Boiling range: approx 58 C

Decomposition temperature: Not determined

Danger of explosion: Yes at elevated temperatures or with air/vapour mixtures

Critical values for explosion:

Lower: N/A Upper: N/A

20 ° C N/A Steam pressure: at

at 20 ° C N/A Density

Solubility in / Miscibility with Water: very soluble

10 Stability and reactivity

Stable.

Materials to be avoided:

Long term exposure to air. Oxidising agents.

Dangerous reactions: No dangerous reactions known.

Dangerous products of decomposition: Carbon oxides

11 Toxicological information

Propanol - Acute toxicity:

LD/LC50 values that are relevant for classification: Oral: LD50: 4797 mg/kg (dog) LD50: 3600 mg/kg (mus)

LD50: 5045 mg/kg (rat) LD50: 6410 mg/kg (rbt) LDLo: 3570 mg/kg (hmn) Dermal: LD50: 12800 mg/kg (rbt)

Inhalative: LC50/8H: 16000 ppm/8H (rat)

Primary irritant effect:

on the skin: Irritant for skin and mucous membranes.

on the eye: Irritant effect.

Sensitization: No sensitizing effect known.

Additional toxicological information:

In addition to local irritant manifestations, there is a narcotic effect when inhaling high concentrations, with the danger of central respiratory arrest.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

IARC-3: Not classifiable as to carcinogenicity to humans.

Acetone - Acute toxicity:

LD/LC50 values that are relevant for classification:

Acetone (CAS# 67-64-1); 100% Oral: LD50: 5800 mg/kg (rat)

Inhalative: LC50/8 hours: 50100 mg/m3/8h (rat)

Primary irritant effect:

on the skin: Irritant for skin and mucous membranes.

on the eye: Irritant effect.

Sensitization: No sensitizing effect known.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

EPA-D: Not classifiable as to human carcinogenicity: inadequate human and animal evidence of carcinogenicity or no

data are available.

ACGIH A4: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of it's carcinogenicity in humans and/or animals. The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this product.

12 Ecological information

General notes:

Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

Product:

Recommendation

Consult state, local or national regulations for proper disposal. Small quantities on a lab scale maybe disposed of to the public sewer diluting greatly with water.

Uncleaned packagings:

Recommendation: If still full dispose of through a waste disposal contractor if empty, rinse with water and dispose of as shown below.

Cleaned packaging: Recyled as Polyethylene (PE)

14Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic) Air Transport IATA. Sea Transport IMDG.

Correct Technical name: Flammable liquid N.O.S (Acetone / propanol mixture) UN 1993 Pack Grp II Class 3

15 Regulatory information

Propanol acetone mixture

H202 + H312 + H332 Harmful if swallowed, by skin contact and by inhalation

H224 Extremely flammable liquid and vapour

H332 Harmful if inhaled

P210 Keep away from heat/sparks/open flames/hot surfaces - No Smoking

P233 Keep container tightly closed,

P243 Take precautionary measures against static discharge,

P262 Do not get in eyes/on skin/on clothing,

P301 IF SWALLOWED – Rinse mouth and seek immediate medical attention

P302 IF ON SKIN - Rinse with water,

P304 IF INHALED – Move to clear air zone,

P305 IF IN EYES – apply eye bath,

P306 - IF ON CLOTHING - Remove contaminated clothing and rinse with water

P314 Get immediate medical attention if you feel unwell,

P370 – IN CASE OF FIRE – use water, CO, dry powder extinguishers. Store in a dark place at 15 – 25 C





. National regulations

Information about limitation of use: For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed.

16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

1 Identification of substance

Gram Counterstain (Safranine, Fuchsin, Neutral Red)

Solution of dilute organic dyes in an aqueous solvent system (including glycols) for use as an organism stain in

microbiology. CAS: N/A EC No: N/A

Produced and supplied by Gainland Chemical Co(GCC Diagnostics). Factory Rd. Sandycroft. Deeside. Flintshire. UK

CH5 2QJ Tel: 01244536326 Fx 01244531254 email Gainland@btconnect.com

2 Composition information

Hazardous components detailed : Essentially non-hazardous

3 Hazards identification

No real risk in normal usage.

Staining of the skin and tissues from the dyes.

Environment: No real risk in the quantities supplied in this kit product.

4 First aid measures

EYES - Mild irritation possible and discolouration from the dyes. If in contact flood eyes with eye bath for 5-10 minutes, opening upper and lower eye-lids. Seek medical attention for all eye injuries from chemicals.

SKIN - Mild irritation possible in sensitive individuals and discolouration from the dyes If irritation or other symptoms persist, seek medical attention.

INGESTION - Maybe harmful if ingested. If ingested wash out mouth with running water and seek emergency medical advice on what treatment to give.

INHALATION - No real risk in normal usage.

5 Fire fighting

Extinguishing Media - Use water spray, fog, or alcohol resistant foam.

Special Hazards - None

Further information - 0044 1244 53 63 26

6 Accidental release measures

Person-related safety precautions:

It is always wise to use such reagents in an efficient fume hood. Wear appropriate protective equipment, impervious gloves etc. Keep unprotected persons away. Ensure adequate ventilation

Measures for environmental protection:

In the kit quantities provided release to public sewer is acceptable. Do not allow material in quantity to be released to the environment without proper governmental permits.

Measures for cleaning/collecting:

Absorb with cloth or absorbent granules for further disposal.

Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation.

7 Handling procedures

Handling

Information for safe handling:

Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Keep out of direct sunlight. Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: None required.

Storage:

Requirements to be met by storerooms and containers: Unsuitable material for container: none. Store in cool location out of direct sunlight. Store in a locked cabinet or with access restricted to technical experts or their assistants

Information about storage in one common storage facility: No extra information required.

8 Exposure control and personal protection

Additional information about design of technical systems: Adequate ventilation.

Components with critical values that require monitoring at the workplace: None

Personal protective equipment

We advise that this product be used in an efficient fume hood or a very well ventilated place. General protective and hygiene measures. The usual precautionary measures should be adhered to in handling any chemical product. Do not consume. Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments. Wash hands during breaks and at

the end of the work.

Store protective clothing separately. Avoid contact with the eyes and skin.

Breathing equipment: N/A

Protection of hands: Impervious gloves

Eye protection - Safety glasses - Face protection

Body protection: Protective work clothing and organic vapour/particle face mask depending on situation of use- not essentially required as there is not likely to be hazardous vapour present at the workplace at normal temperatures.

9 Physical and chemical properties

Form: Liquid Colour: Red Smell: Glycolic

Melting point/Melting range: N/A

Boiling point/Boiling range: in the region of 100 C

Flash point: Not determined

Inflammability (liquid, gaseous) N/A

Ignition temperature: Not determined

Decomposition temperature: Not determined

Danger of explosion: Product is not explosive.

Critical values for explosion:

Lower: N/A Upper: N/A

Steam pressure: at 20 ° C N/A
Density at 20 ° C 1.05 g /ml

Solubility in / Miscibility with Water: Fully miscible

10 Stability and reactivity

Avoid sources of ignition – product is not flammable but is combustible. Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.

Materials to be avoided:

Alkali metals

Dangerous reactions: No dangerous reactions known.

Dangerous products of decomposition: Carbon oxides.

11 Toxicological information

None - essentially non toxic

12 Ecological information

No data available – product is considered non-toxic in the kit quantities supplied

13 Disposal considerations

Product:

Recommendation

Consult state, local or national regulations for proper disposal. Small quantities on a lab scale maybe disposed of to the public sewer diluting greatly with water. Hand over larger amounts to licensed disposers of hazardous waste.

Uncleaned packagings:

Recommendation: If still full dispose of through a waste disposal contractor if empty, rinse with water and dispose of as shown below.

Cleaned packaging: Recyled as Polyethylene (PE)

14 Transport information

Land transport ADR/RID and GGVS/GGVE (crossborder/domestic) Air Transport IATA. Sea Transport IMDG.

Not regulated for transport.

15 REGULATORY INFORMATION

Designation according to EC guidelines:

H305+313 Harmful if swallowed, enters airways by skin contact .Keep container tightly closed.

P262 Do not get in eyes, skin, clothing. IF SWALLOWED - rinse mouth with water, seek urgent medical attention. IF INHALED - move to clear air zone. IF ON SKIN or in EYES - rinse with soap and water and apply eye bath.

P314 Get medical attention if you feel unwell.

National regulations Information about limitation of use: For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed.

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GCC Diagnostics

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