MATERIAL SAFETY DATA SHEET
SDS/MSDS

SECTION 1: Identification

1.1 GHS Product identifier

Product name	Gram Stain Kit
Product number	01304 KIT01
Brand	Bio-Chem Chemicals

1.2 Other means of identification

Components

1. Gentian Violet Solution
2. Lugal's Iodine Solution
3. Gram's Decolorizer Solution
4. Carbol Fuchsin Counterstain
5. Tetrazine Solution

1.3 Recommended use of the chemical and restrictions on use

In Vitro Diagnostic Use

1.4 Supplier's details

Name	Bio-Chem Chemicals
Address	5455 NicholsonRoad, Science Market Ambala Cantt, 133001 - Haryana +91 82952 41953 info@biofinechemical.com - www.biofinechemical.com

1.5 Emergency phone number

+91 99921 51495 (10.00am - 06.30pm) (Office Hours)

SECTION 2: Hazard identification

General hazard statement

For Professional Users Only

2.1 Classification of the substance or mixture

GHS classification in accordance with: Regulation (EC) No 1272/2008 (CLP)

- Acute toxicity, inhalation (chapter 3.1), Cat. 4
- Acute toxicity, inhalation (chapter 3.1), Cat. 5
- Acute toxicity, oral (chapter 3.1), Cat. 4
- Carcinogenicity (chapter 3.6), Cat. 1B
- Germ cell mutagenicity (chapter 3.5), Cat. 2
- Skin corrosion/irritation (chapter 3.2), Cat. 1B
- Specific target organ toxicity following single exposure (chapter 3.8), Cat. 3

2.2 GHS label elements, including precautionary statements

Pictogram

1. Exclamation mark; 2. Health hazard; 3. Corrosion

Signal word **Danger**

Hazard statement(s)

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects
H350	May cause cancer

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell,
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER/doctor.
P312	Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

P501	Dispose of contents/container to a licensed disposal company

2.3 Other hazards which do not result in classification
No other hazards identified.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Component 1
1. Crystal violet

Concentration	<= 2 % (weight)
Other names / synonyms	Methanaminium, N-[4-[bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride
EC no.	208-953-6
CAS no.	548-62-9
Index no.	612-205-00-8

- Carcinogenicity (chapter 3.6), Cat. 1B
- Acute toxicity, oral (chapter 3.1), Cat. 4
- Serious eye damage/eye irritation (chapter 3.3), Cat. 1
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

H302	Harmful if swallowed
H318	Causes serious eye damage
H350	May cause cancer
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

2. Alcohol

Concentration	<= 17 % (volume)
Other names / synonyms	ABSOLUTE ETHANOL; ALCOHOL DEHYDRATED; ALCOHOL, ANHYDROUS; Alcoholum / ethanolum; ALGRAIN; ANHYDROL; COLOGNE SPIRIT; COLOGNE SPIRITS (ALCOHOL); Ethanol; ETHANOL 200 PROOF; ETHANOL SOLUTION; ETHYL ALCOHOL; ETHYL ALCOHOL ANHYDROUS; ETHYL HYDRATE; ETHYL HYDROXIDE; FERMENTATION ALCOHOL; GRAIN ALCOHOL; JAYSOL; JAYSOL S; METHYLCARBINOL; MOLASSES ALCOHOL; NCI-C03134; POTATO ALCOHOL; SD ALCOHOL 23-HYDROGEN; SPIRIT; SPIRITS OF WINE; TECSOL; UN 1170
EC no.	200-578-6
CAS no.	64-17-5
Index no.	603-002-00-5

- Flammable liquids (chapter 2.6), Cat. 2

H225	Highly flammable liquid and vapor

3. Isopropyl alcohol

Concentration	<= 3 % (volume)
Other names / synonyms	2-HYDROXYPROPANE; 2-Propanol; 2-PROPYL ALCOHOL; ALCOJEL; ALCOSOLVE; ALCOSOLVE 2; AVANTIN; AVANTINE; CHROMAR; COMBI-SCHUTZ; DIMETHYLCARBINOL; HARTOSOL; IMSOL A; ISOHOL; Isopropanol; LUTOSOL; N-PROPAN-2-OL; PETROHOL; PRO; PROPAN-2-OL; Propan-2-ol, isopropanol; PROPOL; reaction mass of: bis(1S,2S,4S)-(1-benzyl-4-tert-butoxycarboxamido-2-hydroxy-5-phenyl)pentyl ammonium succinate; SEC-PROPYL ALCOHOL; SPECTRAR; STERISOL HAND DISINFECTANT; TAKINEOCOL; UN 1219
EC no.	414-810-0
CAS no.	67-63-0
Index no.	607-403-00-6

- Flammable liquids (chapter 2.6), Cat. 2
- Serious eye damage/eye irritation (chapter 3.3), Cat. 2
- Specific target organ toxicity following single exposure (chapter 3.8), Cat. 3
- Specific target organ toxicity following repeated exposure (chapter 3.9), Cat. 2
- Serious eye damage/eye irritation (chapter 3.3), Cat. 1
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

H225	Highly flammable liquid and vapor
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

4. Ammonium oxalate monohydrate

Concentration	<= 0.8 % (weight)
EC no.	238-135-4
CAS no.	6009-70-7

- Acute toxicity, dermal (chapter 3.1), Cat. 4
- Acute toxicity, oral (chapter 3.1), Cat. 4

H302	Harmful if swallowed
H312	Harmful in contact with skin

Component 2

1. Potassium iodide

Concentration	<= 4 % (weight)
Other names / synonyms	Kalii iodidum; Potassium iodide (KI);
EC no.	231-659-4
CAS no.	7681-11-0

- Acute toxicity, oral (chapter 3.1), Cat. 4
- Skin corrosion/irritation (chapter 3.2), Cat. 2
- Serious eye damage/eye irritation (chapter 3.3), Cat. 2A

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation

3. Iodine

Concentration	<= 2 % (weight)
EC no.	231-442-4
CAS no.	7553-56-2
Index no.	053-001-00-3

- Acute toxicity, inhalation (chapter 3.1), Cat. 4
- Acute toxicity, dermal (chapter 3.1), Cat. 4
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1

H312	Harmful in contact with skin
H332	Harmful if inhaled
H400	Very toxic to aquatic life

Component 3
1. Acetone

Concentration	<= 50 % (volume)
Other names / synonyms	2-Propanone; BETA-KETOPROPANE; CHEVRON ACETONE; DIMETHYL KETONE; DIMETHYLFORMALDEHYDE; DIMETHYLKETAL; KETONE PROPANE; KETONE, DIMETHYL; METHYL KETONE; propan-2-one; PROPANONE; PYROACETIC ACID; PYROACETIC ETHER; RCRA WASTE NUMBER U002
EC no.	200-662-2
CAS no.	67-64-1
Index no.	606-001-00-8

- Flammable liquids (chapter 2.6), Cat. 2
- Specific target organ toxicity following single exposure (chapter 3.8), Cat. 3
- Serious eye damage/eye irritation (chapter 3.3), Cat. 2

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

2. Alcohol

Concentration	<= 42 % (volume)
Other names / synonyms	ABSOLUTE ETHANOL; ALCOHOL DEHYDRATED; ALCOHOL, ANHYDROUS; Alcoholum / ethanolum; ALGRAIN; ANHYDROL; COLOGNE SPIRIT; COLOGNE SPIRITS (ALCOHOL); Ethanol; ETHANOL 200 PROOF;

	ETHANOL SOLUTION; ETHYL ALCOHOL; ETHYL ALCOHOL ANHYDROUS; ETHYL HYDRATE; ETHYL HYDROXIDE; FERMENTATION ALCOHOL; GRAIN ALCOHOL; JAYSOL; JAYSOL S; METHYLCARBINOL; MOLASSES ALCOHOL; NCI-C03134; POTATO ALCOHOL; SD ALCOHOL 23-HYDROGEN; SPIRIT; SPIRITS OF WINE; TECSOL; UN 1170
EC no.	200-578-6
CAS no.	64-17-5
Index no.	603-002-00-5

- Flammable liquids (chapter 2.6), Cat. 2

H225	Highly flammable liquid and vapor

3. Isopropyl Alcohol

Concentration	<= 3 % (volume)
Other names / synonyms	2-HYDROXYPROPANE; 2-Propanol; 2-PROPYL ALCOHOL; ALCOJEL; ALCOSOLVE; ALCOSOLVE 2; AVANTIN; AVANTINE; CHROMAR; COMBI-SCHUTZ; DIMETHYLCARBINOL; HARTOSOL; IMSOL A; ISOHOL; Isopropanol; LUTOSOL; N-PROPAN-2-OL; PETROHOL; PRO; PROPAN-2-OL; Propan-2-ol, isopropanol; PROPOL; reaction mass of: bis(1S,2S,4S)-(1-benzyl-4-tert-butoxycarboxamido-2-hydroxy-5-phenyl)pentyl ammonium succinate; SEC-PROPYL ALCOHOL; SPECTRAR; STERISOL HAND DISINFECTANT; TAKINEOCOL; UN 1219
EC no.	414-810-0
CAS no.	67-63-0
Index no.	607-403-00-6

- Flammable liquids (chapter 2.6), Cat. 2
- Serious eye damage/eye irritation (chapter 3.3), Cat. 2
- Specific target organ toxicity following single exposure (chapter 3.8), Cat. 3
- Specific target organ toxicity following repeated exposure (chapter 3.9), Cat. 2
- Serious eye damage/eye irritation (chapter 3.3), Cat. 1
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

H225	Highly flammable liquid and vapor
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

4. PHENOL

Concentration	<= 5 % (volume)
EC no.	203-632-7
CAS no.	108-95-2

Index no.	604-001-00-2

- Germ cell mutagenicity (chapter 3.5), Cat. 2
- Acute toxicity, inhalation (chapter 3.1), Cat. 3
- Acute toxicity, dermal (chapter 3.1), Cat. 3
- Acute toxicity, oral (chapter 3.1), Cat. 3
- Specific target organ toxicity following repeated exposure (chapter 3.9), Cat. 2
- Skin corrosion/irritation (chapter 3.2), Cat. 1B

H301	Toxic if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H331	Toxic if inhaled
H341	Suspected of causing genetic defects
H373	May cause damage to organs through prolonged or repeated exposure
SCLs/M-factors/ATEs	*
	Skin Corr. 1B; H314: C ≥ 3 %
	Skin Irrit. 2; H315: 1 % ≤ C < 3 %
	Eye Irrit. 2; H319: 1 % ≤ C < 3 %

Component 4
1. Alcohol

Concentration	<= 10 % (volume)
Other names / synonyms	ABSOLUTE ETHANOL; ALCOHOL DEHYDRATED; ALCOHOL, ANHYDROUS; Alcoholum / ethanolum; ALGRAIN; ANHYDROL; COLOGNE SPIRIT; COLOGNE SPIRITS (ALCOHOL); Ethanol; ETHANOL 200 PROOF; ETHANOL SOLUTION; ETHYL ALCOHOL; ETHYL ALCOHOL ANHYDROUS; ETHYL HYDRATE; ETHYL HYDROXIDE; FERMENTATION ALCOHOL; GRAIN ALCOHOL; JAYSOL; JAYSOL S; METHYLCARBINOL; MOLASSES ALCOHOL; NCI-C03134; POTATO ALCOHOL; SD ALCOHOL 23-HYDROGEN; SPIRIT; SPIRITS OF WINE; TECSOL; UN 1170
EC no.	200-578-6
CAS no.	64-17-5
Index no.	603-002-00-5

- Flammable liquids (chapter 2.6), Cat. 2

H225	Highly flammable liquid and vapor

2. Ci 42510

Concentration	<= 0.1 % (weight)
Other names / synonyms	(4-(4-Aminophenyl)(4-iminocyclohexa-2,5-dienylidene)methyl)-2-methyl aniline hydrochloride; Benzenamine, 4-((4-aminophenyl)(4-imino-2,5-cyclohexadien-1-ylidene)methyl)-2-methyl-, hydrochloride (1:1); Benzenamine, 4-[(4-aminophenyl)(4-imino-2,5-cyclohexadien-1-ylidene)methyl]-2-methyl-, monohydrochloride; C.I. BASIC VIOLET 14; Fuchsin
CAS no.	632-99-5

3. Acetic acid

Concentration	<= 0.2 % (volume)
Other names / synonyms	acetic acid; ACETIC ACID; ACETIC ACID, GLACIAL; ACETICACID; Acidum aceticum; ETHANOIC ACID; ETHYLIC ACID; GLACIAL ACETIC ACID; METHANECARBOXYLIC ACID; UN 2789; UN 2790; VINEGAR ACID
EC no.	200-580-7
CAS no.	64-19-7
Index no.	607-002-00-6

- Flammable liquids (chapter 2.6), Cat. 3
- Skin corrosion/irritation (chapter 3.2), Cat. 1A

H226	Flammable liquid and vapor
H314	Causes severe skin burns and eye damage
SCLs/M-factors/ATEs	Skin Corr. 1A; H314: C ≥ 90 % Skin Corr. 1B; H314: 25 % ≤ C < 90 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %

Component 5
1. Ci 19140

Concentration	<= 0.1 % (weight)
Other names / synonyms	1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-5-oxo-1-(4-sulfophenyl)-4-[(4-sulfophenyl)azo]-, trisodium salt; 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-5-oxo-1-(4-sulfophenyl)-4-[2-(4-sulfophenyl)diazenyl]-, sodium salt (1:3); Acid Yellow; Acid Yellow ; Tartrazine; Trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate
EC no.	217-699-5
CAS no.	1934-21-0

- Respiratory sensitizer (chapter 3.4), Cat. 1
- Skin sensitizer (chapter 3.4), Cat. 1

H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

In case of skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
If swallowed	Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Personal protective equipment for first-aid responders
Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

4.2 Most important symptoms/effects, acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of immediate medical attention and special treatment needed, if necessary
No data available

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
Use extinguishing media appropriate for surrounding fire.

5.2 Specific hazards arising from the chemical

Ethanol: Carbon oxides

5.3 Special protective actions for fire-fighters
Wear self-contained breathing apparatus for firefighting if necessary.

Further information
No data available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions
Should not be released into the environment. See Section 12 for additional ecological information.

6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.

Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS: 108-95-2
Phenol
Cal/OSHA: 5 ppm PEL inhalation; NIOSH: 5 ppm, (C) 15.6 ppm [15-min] REL inhalation; OSHA: 5 ppm PEL inhalation; 19 mg/m3 PEL inhalation

CAS: 64-17-5
Alcohol
ACGIH (USA): (ST) 1000 ppm TLV® inhalation; Cal/OSHA: 1000 ppm PEL inhalation; NIOSH: 1000 ppm REL inhalation; OSHA: 1000 ppm PEL inhalation; 1900 mg/m3 PEL inhalation

CAS: 64-19-7 (EC: 200-580-7)
Acetic acid
ACGIH (USA): 15 ppm STEL inhalation; 10 ppm, (ST) 15 ppm TLV® inhalation; 10 ppm TWA inhalation; Cal/OSHA (USA): 40 ppm C inhalation; 10 ppm, (ST) 15 ppm, (C) 40 ppm PEL inhalation; 10 ppm, 25 mg/m3 PEL inhalation; 15 ppm, 37 mg/m3 STEL inhalation; NIOSH (USA): 10 ppm, (ST) 15 ppm REL inhalation; 15 ppm, 37 mg/m3 ST inhalation; 10 ppm, 25 mg/m3 TWA inhalation; OSHA (USA): 25 mg/m3 PEL inhalation; 10 ppm PEL inhalation; 10 ppm, 25 mg/m3 TWA inhalation

CAS: 67-63-0
Isopropyl alcohol
ACGIH (USA): 200 ppm, (ST) 400 ppm TLV® inhalation; Cal/OSHA: 400 ppm, (ST) 500 ppm PEL inhalation; NIOSH: 400 ppm, (ST) 500 ppm REL inhalation; OSHA: 400 ppm PEL inhalation; 980 mg/m3 PEL inhalation

CAS: 67-64-1
Acetone
ACGIH (USA): 250 ppm, (ST) 500 ppm TLV® inhalation; Cal/OSHA: 500 ppm, (ST) 750 ppm, (C) 3000 ppm PEL inhalation; NIOSH: 250 ppm REL inhalation; OSHA: 1000 ppm PEL inhalation; 2400 mg/m3 PEL inhalation

CAS: 7553-56-2
Iodine

Cal/OSHA: (C) 0.1 ppm PEL inhalation; NIOSH: (C) 0.1 ppm REL inhalation; OSHA: (C) 0.1 ppm PEL inhalation; (C) 1 mg/m3 PEL inhalation

CAS: 7681-11-0 (EC: 231-659-4)
Potassium iodide
ACGIH: 0.01 mg/m3 TWA inhalation

8.2 Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards
No data available

Control banding approach
No data available.

Environmental exposure controls
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Liquid
Appearance	Clear
Color	Various
Odor	Odorless
Odor threshold	No data available.
pH	No data available
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flash point	No data available.

Evaporation rate	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Vapor pressure	No data available.
Relative vapor density	No data available.
Density and/or relative density	No data available.
Solubility	No data available.
Partition coefficient n-octanol/water (log value)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Particle characteristics
No data available.

Supplemental information regarding physical hazard classes
No data available.

Further safety characteristics (supplemental)
No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity
None under normal use conditions.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
None under normal use conditions.

10.4 Conditions to avoid
Exposure to moisture.

Avoid storing in direct sunlight and avoid extremes of temperature.

Heat, flames and sparks.

10.5 Incompatible materials

Ethanol: Alkali metals, Oxidizing agents, Peroxides

Isopropanol: Oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids

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Ammonium oxalate monohydrate: Strong oxidizing agents, Strong acids

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Potassium iodide: Strong reducing agents, Nickel, Strong acids, and its alloys, Steel (all types and surface treatments), Aluminum, Alkali metals, Brass, Magnesium, Zinc, cadmium, Copper

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Acetone: Bases, Oxidizing agents, Reducing agents, Acetone reacts violently with phosphorous oxychloride.

Acetic acid: Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium
permanganate, Amines, Alcohols, Nitric acid

10.6 Hazardous decomposition products
Other decomposition products - No data available In the event of fire: see section 5

Isopropanol: Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available
In the event of fire: see section 5

Acid Yellow : Other decomposition products - no data available
In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Ethanol: ACGIH: A3 Confirmed animal carcinogen with unknown relevance to humans.

The ATE (gas inhalation) of the mixture is: 13179.92 ppmV

The ATE (vapor inhalation) of the mixture is: 54.1 mg/l

The ATE (oral) of the mixture is: 1612.9 mg/kg bw

Acetic acid
LD50 Oral - Rat - 3,310 mg/kg

ACETONE
LD50 Oral - Rat - 5,800 mg/kg
Remarks: Behavioral :Altered sleep time (including change in righting reflex). Behavioral:Tremor. Behavioral:Headache.
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Acid yellow
LD50 Oral - Mouse - 12,750 mg/kg

ETHANOL
LD50 Oral - Rat - 10,470 mg/kg

Potassium iodide
LD50 Oral - Mouse - 1,000 mg/kg

Skin corrosion/irritation

Acetic acid
LD50 Skin - Rat - 1,112 mg/kg

ACETONE
LD50 Skin - Guinea pig - 7,429 mg/kg

ACETONE
Skin - Rabbit - 24 hr
Result: Mild skin irritation

ETHANOL
LD50 Skin - Rabbit - 15,800 mg/kg

ETHANOL
OECD Test Guideline 404 Skin - Rabbit - 24 h
Result: No skin irritation

ISOPROPANOL
LD50 Skin - Rabbit - 12,800 mg/kg

Serious eye damage/irritation
ETHANOL
OECD Test Guideline 405 Eyes - Rabbit
Result: Moderate eye irritation

Respiratory or skin sensitization
Acetic acid
LC50 Inhalation - Mouse - 5620 ppm - 1 h
Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Other. Blood:Other changes.

ACETONE
LC50 Inhalation - Rat - 50,100 mg/m3 - 8 h
Remarks: Drowsiness Dizziness Unconsciousness

ETHANOL
LD50 Inhalation - Rat - 30,000 mg/l - 4 h

ISOPROPANOL
LC50 Inhalation - Rat - 16000 ppm - 8 h

Germ cell mutagenicity
No data available

Carcinogenicity
Acetic acid

Result: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

ACETONE

Remarks: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Acid yellow

Result: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as aknown or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

ISOPROPANOL

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Potassium iodide

Result: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
No data available

STOT-single exposure
ACETONE

Remarks: May cause drowsiness or dizziness.

STOT-repeated exposure
No data available.

Aspiration hazard
No data available.

Additional information
No data available.

SECTION 12: Ecological information

Toxicity
ISOPROPANOL
EC50 - Desmodesmus subspicatus (chodat) - > 2,000.00 mg/l - 72 h

Persistence and degradability
ACETONE
OECD Test Guideline 301B
Result: 91% -Readily biodegradable.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Endocrine disrupting properties
No data available.

Other adverse effects
No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Offer surplus and non-recyclable solutions to a licensed disposal company.

Packaging disposal
Dispose of as unused product.

Waste treatment
No data available

Sewage disposal
Do not let product enter drains

Other disposal recommendations
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

SECTION 14: Transport information

14.1	UN Number	None
14.2	UN Proper Shipping Name	None
14.3	Transport hazard class(es)	None
14.4	Packing group	None

14.5	Environmental hazards	None
14.6	Special precautions for user	None
14.7	Maritime transport in bulk according to IMO instruments	None

SECTION 15: Regulatory information

15.2 Chemical Safety Assessment

The supplier of this product has not conducted any Chemical Safety Assessment

HMIS Rating

Gram Stain Kit	
HEALTH	3
FLAMMABILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

NFPA Rating

SECTION 16: Other information

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