



## Kit Safety Data Sheet

Product Name: Gram Stain Kit

Product Code: R40080

## Component Safety Data Sheets for Kit

Code	Component Name	SDS Required*
R40052, R40053, R40073	Gram Crystal Violet	Yes
R40054	Gram Decolourizer	Yes
R40056	Gram Iodine (Concentrate)	Yes
R40058	Gram Safranin	Yes

### Emergency contact information:

Company Identification: Oxoid Ltd.  
Wade Road,  
Basingstoke,  
Hants, RG24 8PW  
United Kingdom

Company Phone Number: +44 (0) 1256 841144

Emergency Telephone Number Carechem 24: +44 (0) 1865 407333

Email: [mbd-sds@thermofisher.com](mailto:mbd-sds@thermofisher.com)

\* Kit components labelled as not required above are not included in this SDS and are considered non-hazardous.

# SAFETY DATA SHEET

Creation Date 05-Apr-2011

Revision Date 05-Apr-2011

Revision Number 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product Name** Gram Crystal Violet  
**Cat No.** R40052, R40053, R40073  
**Synonyms** No information available.  
**Recommended Use** Laboratory chemicals

<b>Company</b>	Remel 12076 Santa Fe Drive Lenexa, KS 66215 United States Telephone: 1-800-255-6730 Fax:1-800-621-8251	<b>Entity / Business Name</b> Oxoid Ltd. Wade Road Basingstoke, Hants, UK RG24 8PW Telephone: +44 (0) 1256 841144
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**Emergency Telephone Number** Carechem 24: +44 (0) 1865 407333

## 2. HAZARDS IDENTIFICATION

The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

### R -phrase(s)

R10 - Flammable

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Haz/Non-haz

Component	Weight %	EC No.	Classification
Ethyl alcohol 64-17-5	20	EEC No. 200-578-6	F;R11
Methyl alcohol 67-56-1	1	EEC No. 200-659-6	F;R11 T;R23/24/25-39/23/24/25
Phenol 108-95-2	<1.00	EEC No. 203-632-7	Muta.Cat.3;R68 T;R23/24/25 Xn;R48/20/21/22 C;R34
C.I. Basic violet 1 548-62-9	<1.00	EEC No. 208-953-6	Carc.Cat.3;R40 Xn;R22 Xi;R41 N;R50-53

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For the full text of the R phrases mentioned in this Section, see Section 16

## 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Obtain medical attention.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water. Get medical attention immediately if symptoms occur.
<b>Inhalation</b>	Move to fresh air. Get medical attention if symptoms occur..
<b>Notes to Physician</b>	Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Water spray. CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

### Extinguishing media which must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire

### Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

<b>Flash Point</b>	36.11°C / 97°F
<b>Method</b>	Closed cup
<b>Autoignition Temperature</b>	No information available.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.
<b>Environmental Precautions</b>	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
<b>Methods for Containment and Clean Up</b>	Soak up with inert absorbent material: Keep in suitable and closed containers for disposal. Do not empty into drains

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## 7. HANDLING AND STORAGE

<b>Handling</b>	Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.
<b>Storage</b>	Keep container tightly closed in a dry and well-ventilated place
<b>Specific use(s)</b>	No information available.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure limits

Component	European Union	The United Kingdom	Belgium	France	Spain	Germany
Ethyl alcohol		TWA: 1000 ppm TWA: 1920 mg/m <sup>3</sup> TWA WEL - STEL: 3000 ppm STEL; 5760 mg/m <sup>3</sup> STEL	TWA: 1907 mg/m <sup>3</sup> TWA: 1000 ppm	VME: 1000 ppm VME: 1900 mg/m <sup>3</sup> VLCT: 5000 ppm VLCT: 9500 mg/m <sup>3</sup>	VLA-ED: 1000 ppm VLA-ED: 1910 mg/m <sup>3</sup>	500 ppm TWA; 960 mg/m <sup>3</sup> TWA
Methyl alcohol	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> Skin	WEL - TWA: 200 ppm TWA; 266 mg/m <sup>3</sup> TWA WEL - STEL: 250 ppm STEL; 333 mg/m <sup>3</sup> STEL	STEL: 250 ppm STEL: 333 mg/m <sup>3</sup> TWA: 266 mg/m <sup>3</sup> TWA: 200 ppm	VME: 200 ppm VME: 260 mg/m <sup>3</sup> VLCT: 1000 ppm VLCT: 1300 mg/m <sup>3</sup>	VLA-ED: 266 mg/m <sup>3</sup> VLA-ED: 200 ppm	200 ppm TWA; 270 mg/m <sup>3</sup> TWA Skin absorber
Phenol			TWA: 7.8 mg/m <sup>3</sup> TWA: 2 ppm	VME: 2 ppm VME: 7.8 mg/m <sup>3</sup> VLCT: 15.6 mg/m <sup>3</sup> VLCT: 4 ppm	VLA-ED: 2 ppm VLA-ED: 8 mg/m <sup>3</sup>	

Component	Italy	Portugal	The Netherlands	Finland	Austria
Ethyl alcohol		TWA: 1000 ppm	STEL: 1900 mg/m <sup>3</sup> TWA: 260 mg/m <sup>3</sup>	TWA: 1900 mg/m <sup>3</sup> TWA: 1000 ppm STEL: 2500 mg/m <sup>3</sup> STEL: 1300 ppm	STEL: 2000 ppm STEL: 3800 mg/m <sup>3</sup> MAK: 1000 ppm MAK: 1900 mg/m <sup>3</sup>
Methyl alcohol	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	STEL: 250 ppm TWA: 200 ppm	STEL: 520 mg/m <sup>3</sup> TWA: 260 mg/m <sup>3</sup>	TWA: 270 mg/m <sup>3</sup> TWA: 200 ppm STEL: 330 mg/m <sup>3</sup> STEL: 250 ppm	STEL: 1040 mg/m <sup>3</sup> STEL: 800 ppm MAK: 260 mg/m <sup>3</sup> MAK: 200 ppm
Phenol	TWA: 2 ppm TWA: 7.8 mg/m <sup>3</sup>	TWA: 5 ppm	TWA: 8 mg/m <sup>3</sup>	TWA: 2 ppm TWA: 8 mg/m <sup>3</sup> STEL: 5 ppm STEL: 20 mg/m <sup>3</sup>	MAK: 7.8 mg/m <sup>3</sup> MAK: 2 ppm

Component	Switzerland	Poland	Norway	Ireland	Denmark	Australia
Ethyl alcohol	STEL: 1000 ppm STEL: 1920 mg/m <sup>3</sup> MAK: 960 mg/m <sup>3</sup> MAK: 500 ppm	NDS: 1900 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 950 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	TWA: 1900 mg/m <sup>3</sup> TWA: 1000 ppm	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>

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Component	Switzerland	Poland	Norway	Ireland	Denmark	Australia
Methyl alcohol	STEL: 1040 mg/m <sup>3</sup> STEL: 800 ppm MAK: 200 ppm MAK: 260 mg/m <sup>3</sup>	NDSch: 300 mg/m <sup>3</sup> NDS: 100 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 130 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 310 mg/m <sup>3</sup> Skin	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	STEL: 250 ppm STEL: 328 mg/m <sup>3</sup> TWA: 262 mg/m <sup>3</sup> TWA: 200 ppm
Phenol	STEL: 5 ppm STEL: 19 mg/m <sup>3</sup> MAK: 5 ppm MAK: 19 mg/m <sup>3</sup>	NDS: 7.8 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 4 mg/m <sup>3</sup>	TWA: 2 ppm TWA: 7.8 mg/m <sup>3</sup> Skin	TWA: 1 ppm TWA: 4 mg/m <sup>3</sup>	TWA: 4 mg/m <sup>3</sup> TWA: 1 ppm

## Occupational exposure controls

### Engineering Measures

Ensure adequate ventilation, especially in confined areas

### Personal Protective Equipment

#### Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

#### Eye Protection

Tightly fitting safety goggles

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

#### Hand Protection

Protective gloves

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

### Environmental exposure controls

No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical State

Liquid

### Appearance

Dark purple

### pH

3.0 - 5.5

### Boiling Point/Range

No information available.

### Melting Point/Range

No information available.

### Flash Point

36.11°C / 97°F

### Method

Closed cup

## 10. STABILITY AND REACTIVITY

### Stability

Stable under recommended storage conditions.

### Conditions to Avoid

Keep away from open flames, hot surfaces and sources of ignition.

### Incompatible Materials

Strong oxidizing agents

### Hazardous Decomposition Products

None under normal use

### Hazardous Polymerization

Hazardous polymerization does not occur.

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Hazardous Reactions . None under normal processing.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

Product Information Product does not present an acute toxicity hazard based on known or supplied information

### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethyl alcohol	7060 mg/kg ( Rat )		20000 ppm/10H ( Rat )
Methyl alcohol	5628 mg/kg ( Rat )	15800 mg/kg ( Rabbit )	64000 ppm ( Rat ) 4 h 83.2 mg/L ( Rat ) 4 h
Phenol	317 mg/kg ( Rat )	525 mg/kg ( Rat ) 630 mg/kg ( Rabbit )	316 mg/m <sup>3</sup> ( Rat ) 4 h
C.I. Basic violet 1	420 mg/kg ( Rat )		

### Chronic Toxicity

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	IARC	UK
Phenol	group 3	

### IARC: (International Agency for Research on Cancer)

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Sensitization No information available.

Neurological Effects No information available.

Mutagenic Effects No information available.

Reproductive Effects No information available.

Developmental Effects No information available.

Target Organs Blood, Liver, Respiratory system, Central nervous system (CNS), Eyes, Kidney, Reproductive System, Gastrointestinal tract (GI), Skin, Optic nerve.

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Ethyl alcohol		Leucidus idus: LC50 = 8.14 mg/L/48h	Photobacterium phosphoreum: EC50 = 34634 mg/L/30 min Photobacterium phosphoreum: EC50 = 35470 mg/L/5 min	EC50 = 9268 mg/L/48h EC50 = 10800 mg/L/24h
Methyl alcohol		Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	EC50 > 10000 mg/L 24h
Phenol	187 - 279 mg/L EC50 72 h 0.0188 - 0.1044 mg/L EC50 96 h 46.42 mg/L EC50 = 96 h	4-7 mg/L LC50 96 h 32 mg/L LC50 96 h	EC50 21 - 36 mg/L 30 min EC50 = 23.28 mg/L 5 min EC50 = 25.61 mg/L 15 min EC50 = 28.8 mg/L 5 min EC50 = 31.6 mg/L 15 min	10.2 - 15.5 mg/L EC50 48 h 4.24 - 10.7 mg/L EC50 48 h

**Persistence and Degradability** No information available

**Bioaccumulative Potential** No information available.

**Mobility** No information available.

Component	log Pow
Ethyl alcohol	-0.32
Methyl alcohol	-0.74
Phenol	1.47

## 13. DISPOSAL CONSIDERATIONS

**Waste from Residues / Unused Products** Hazardous waste. Dispose of in accordance with local regulations

**Contaminated Packaging** Empty containers should be taken for local recycling, recovery or waste disposal

## 14. TRANSPORT INFORMATION

### IMDG/IMO

UN-No UN1170  
Hazard Class 3  
Packing Group III  
Proper Shipping Name ETHANOL SOLUTION

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## 14. TRANSPORT INFORMATION

### ADR

UN-No UN1170  
Hazard Class 3  
Packing Group III  
Proper Shipping Name ETHANOL SOLUTION

### IATA

UN-No UN1170  
Hazard Class 3  
Packing Group III  
Proper Shipping Name ETHANOL SOLUTION

## 15. REGULATORY INFORMATION

The preparation is classified as dangerous in accordance with Directive 1999/45/EC

### Labelling

#### R -phrase(s)

R10 - Flammable

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

#### S -phrase(s)

S29 - Do not empty into drains

S46 - If swallowed, seek medical advice immediately and show this container or label

### International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Ethyl alcohol	200-578-6	-		X	X	-	X	X	X	X	KE-13217 X
Methyl alcohol	200-659-6	-		X	X	-	X	X	X	X	KE-23193 X
Phenol	203-632-7	-		X	X	-	X	X	X	X	KE-28209 X
C.I. Basic violet 1	-	-		X	X	-	X	X	X	X	X



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## 16. OTHER INFORMATION

### Text of R phrases mentioned in Section 2-3

R10 - Flammable

R11 - Highly flammable

R22 - Harmful if swallowed

R34 - Causes burns

R40 - Limited evidence of a carcinogenic effect

R41 - Risk of serious damage to eyes

R68 - Possible risk of irreversible effects

R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed

R39/23/24/25 - Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed

R48/20/21/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

<b>Prepared By</b>	Regulatory Affairs
<b>Creation Date</b>	05-Apr-2011
<b>Revision Date</b>	05-Apr-2011
<b>Revision Summary</b>	"***", and red text indicates revision
<b>Restrictions on use</b>	No information available.
<b>Training advice</b>	No information available.
<b>Literary reference</b>	No information available.

### Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet

# SAFETY DATA SHEET

Creation Date 05-May-2011

Revision Date 05-May-2011

Revision Number 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product Name**

**Gram Decolourizer**

**Cat No.**

**R40054**

**Synonyms**

No information available.

**Recommended Use**

Laboratory chemicals

**Company**

Remel  
12076 Santa Fe Drive  
Lenexa, KS 66215 United States  
Telephone: 1-800-255-6730  
Fax:1-800-621-8251

**Entity / Business Name**

Oxoid Ltd.  
Wade Road  
Basingstoke, Hants, UK  
RG24 8PW  
Telephone: +44 (0) 1256 841144

**Emergency Telephone Number**

Carechem 24: +44 (0) 1865 407333

## 2. HAZARDS IDENTIFICATION

The preparation is classified as dangerous in accordance with Directive 1999/45/EC.



**R -phrase(s)**

R11 - Highly flammable

R36 - Irritating to eyes

R66 - Repeated exposure may cause skin dryness or cracking

R67 - Vapors may cause drowsiness and dizziness

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Haz/Non-haz**

Component	Weight %	EC No.	Classification
Acetone 67-64-1	50	EEC No. 200-662-2	F;R11 Xi;R36 R66 R67
Ethyl alcohol 64-17-5	48	EEC No. 200-578-6	F;R11

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Methyl alcohol 67-56-1	<3	EEC No. 200-659-6	F;R11 T;R23/24/25-39/23/24/25
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For the full text of the R phrases mentioned in this Section, see Section 16

## 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician
<b>Skin Contact</b>	Rinse with plenty of water. Get medical attention if irritation develops and persists..
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water. Get medical attention.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, obtain medical attention..
<b>Notes to Physician</b>	Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam. Cool containers with flooding quantities of water until well after fire is out.

### Extinguishing media which must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire

### Specific Hazards Arising from the Chemical

Flammable.

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

<b>Flash Point</b>	0°C / 32°F
<b>Method</b>	Closed cup
<b>Autoignition Temperature</b>	No information available.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Remove all sources of ignition. Use personal protective equipment.
<b>Environmental Precautions</b>	Do not flush into surface water or sanitary sewer system.
<b>Methods for Containment and Clean Up</b>	Soak up with inert absorbent material. Take precautionary measures against static discharges

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Gram Decolourizer

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## 7. HANDLING AND STORAGE

**Handling** Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Wear personal protective equipment.

**Storage** Keep away from heat and sources of ignition.

**Specific use(s)** No information available.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure limits

Component	European Union	The United Kingdom	Belgium	France	Spain	Germany
Acetone		TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> STEL: 1500 ppm STEL: 3620 mg/m <sup>3</sup>	STEL: 1000 ppm STEL: 2420 mg/m <sup>3</sup> TWA: 1210 mg/m <sup>3</sup> TWA: 500 ppm	VME: 1210 mg/m <sup>3</sup> VME: 500 ppm VLCT: 1000 ppm VLCT: 2420 mg/m <sup>3</sup>	VLA-ED: 500 ppm VLA-ED: 1210 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1200 mg/m <sup>3</sup>
Ethyl alcohol		TWA: 1000 ppm TWA: 1920 mg/m <sup>3</sup> TWA WEL - STEL: 3000 ppm STEL: 5760 mg/m <sup>3</sup> STEL	TWA: 1907 mg/m <sup>3</sup> TWA: 1000 ppm	VME: 1000 ppm VME: 1900 mg/m <sup>3</sup> VLCT: 5000 ppm VLCT: 9500 mg/m <sup>3</sup>	VLA-ED: 1000 ppm VLA-ED: 1910 mg/m <sup>3</sup>	500 ppm TWA; 960 mg/m <sup>3</sup> TWA
Methyl alcohol	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> Skin	WEL - TWA: 200 ppm TWA: 266 mg/m <sup>3</sup> TWA WEL - STEL: 250 ppm STEL: 333 mg/m <sup>3</sup> STEL	STEL: 250 ppm STEL: 333 mg/m <sup>3</sup> TWA: 266 mg/m <sup>3</sup> TWA: 200 ppm	VME: 200 ppm VME: 260 mg/m <sup>3</sup> VLCT: 1000 ppm VLCT: 1300 mg/m <sup>3</sup>	VLA-ED: 266 mg/m <sup>3</sup> VLA-ED: 200 ppm	200 ppm TWA; 270 mg/m <sup>3</sup> TWA Skin absorber

Component	Italy	Portugal	The Netherlands	Finland	Austria
Acetone	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>	STEL: 750 ppm TWA: 500 ppm	STEL: 2420 mg/m <sup>3</sup> TWA: 1210 mg/m <sup>3</sup>	TWA: 1200 mg/m <sup>3</sup> TWA: 500 ppm STEL: 1500 mg/m <sup>3</sup> STEL: 630 ppm	STEL: 2000 ppm STEL: 4800 mg/m <sup>3</sup> MAK: 1200 mg/m <sup>3</sup> MAK: 500 ppm
Ethyl alcohol		TWA: 1000 ppm	STEL: 1900 mg/m <sup>3</sup> TWA: 260 mg/m <sup>3</sup>	TWA: 1900 mg/m <sup>3</sup> TWA: 1000 ppm STEL: 2500 mg/m <sup>3</sup> STEL: 1300 ppm	STEL: 2000 ppm STEL: 3800 mg/m <sup>3</sup> MAK: 1000 ppm MAK: 1900 mg/m <sup>3</sup>
Methyl alcohol	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	STEL: 250 ppm TWA: 200 ppm	STEL: 520 mg/m <sup>3</sup> TWA: 260 mg/m <sup>3</sup>	TWA: 270 mg/m <sup>3</sup> TWA: 200 ppm STEL: 330 mg/m <sup>3</sup> STEL: 250 ppm	STEL: 1040 mg/m <sup>3</sup> STEL: 800 ppm MAK: 260 mg/m <sup>3</sup> MAK: 200 ppm

Component	Switzerland	Poland	Norway	Ireland	Denmark	Australia
Acetone	STEL: 1000 ppm STEL: 2400 mg/m <sup>3</sup> MAK: 1200 mg/m <sup>3</sup> MAK: 500 ppm	NDSch: 1800 mg/m <sup>3</sup> NDS: 600 mg/m <sup>3</sup>	TWA: 125 ppm TWA: 295 mg/m <sup>3</sup>	TWA: 1210 mg/m <sup>3</sup> TWA: 500 ppm	TWA: 250 ppm TWA: 600 mg/m <sup>3</sup>	STEL: 1000 ppm STEL: 2375 mg/m <sup>3</sup> TWA: 1185 mg/m <sup>3</sup> TWA: 500 ppm

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Component	Switzerland	Poland	Norway	Ireland	Denmark	Australia
Ethyl alcohol	STEL: 1000 ppm STEL: 1920 mg/m <sup>3</sup> MAK: 960 mg/m <sup>3</sup> MAK: 500 ppm	NDS: 1900 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 950 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	TWA: 1900 mg/m <sup>3</sup> TWA: 1000 ppm	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>
Methyl alcohol	STEL: 1040 mg/m <sup>3</sup> STEL: 800 ppm MAK: 200 ppm MAK: 260 mg/m <sup>3</sup>	NDSch: 300 mg/m <sup>3</sup> NDS: 100 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 130 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 310 mg/m <sup>3</sup> Skin	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	STEL: 250 ppm STEL: 328 mg/m <sup>3</sup> TWA: 262 mg/m <sup>3</sup> TWA: 200 ppm

## Occupational exposure controls

### Engineering Measures

Ensure adequate ventilation, especially in confined areas

### Personal Protective Equipment

#### Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

#### Eye Protection

Tightly fitting safety goggles

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

#### Hand Protection

Protective gloves

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

### Environmental exposure controls

No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical State

Liquid

### Appearance

Clear

### odor

pungent

### pH

6.0

### Boiling Point/Range

56.1°C / 133°F

### Melting Point/Range

No information available.

### Flash Point

0°C / 32°F

### Method

Closed cup

## 10. STABILITY AND REACTIVITY

### Stability

Stable under normal conditions.

### Conditions to Avoid

Keep away from open flames, hot surfaces and sources of ignition.

### Incompatible Materials

Strong oxidizing agents

**Hazardous Decomposition Products** Carbon oxides

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**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions .** None under normal processing.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acetone	5800 mg/kg ( Rat )		
Ethyl alcohol	7060 mg/kg ( Rat )		20000 ppm/10H ( Rat )
Methyl alcohol	5628 mg/kg ( Rat )	15800 mg/kg ( Rabbit )	64000 ppm ( Rat ) 4 h 83.2 mg/L ( Rat ) 4 h

### Chronic Toxicity

**Carcinogenicity** Contains no ingredient listed as a carcinogen

**Sensitization** No information available.

**Neurological Effects** No information available.

**Mutagenic Effects** No information available.

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Target Organs** Blood, Liver, Respiratory system, Central nervous system (CNS), Eyes, Reproductive System, Gastrointestinal tract (GI), Skin, Optic nerve.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Acetone		Leuciscus idus: LC50 = 11300 mg/L/48h Salmo gairdneri: LC50 = 6100 mg/L/24h	EC50 = 14500 mg/L/15 min	EC50 = 39 mg/L/48h EC50 = 12700 mg/L/48h EC50 = 12600 mg/L/48h

# SAFETY DATA SHEET

Gram Decolourizer

Revision Date 05-May-2011

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Ethyl alcohol		Leucidus idus: LC50 = 8.14 mg/L/48h	Photobacterium phosphoreum: EC50 = 34634 mg/L/30 min Photobacterium phosphoreum: EC50 = 35470 mg/L/5 min	EC50 = 9268 mg/L/48h EC50 = 10800 mg/L/24h
Methyl alcohol		Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	EC50 > 10000 mg/L 24h

**Persistence and Degradability** No information available

**Bioaccumulative Potential** No information available.

**Mobility** No information available.

Component	log Pow
Acetone	0
Ethyl alcohol	-0.32
Methyl alcohol	-0.74

## 13. DISPOSAL CONSIDERATIONS

**Waste from Residues / Unused Products** Dispose of in accordance with local regulations

**Contaminated Packaging** Empty containers should be taken for local recycling, recovery or waste disposal

## 14. TRANSPORT INFORMATION

### IMDG/IMO

**UN-No** UN1993  
**Hazard Class** 3  
**Packing Group** II  
**Proper Shipping Name** Flammable liquid, n.o.s. (Acetone, Ethyl Alcohol)

### ADR

**UN-No** UN1993  
**Hazard Class** 3  
**Packing Group** II  
**Proper Shipping Name** Flammable liquid, n.o.s. (Acetone, Ethyl Alcohol)

### IATA

**UN-No** UN1993  
**Hazard Class** 3

# SAFETY DATA SHEET

Gram Decolourizer

Revision Date 05-May-2011

## 14. TRANSPORT INFORMATION

**Packing Group** II  
**Proper Shipping Name** Flammable liquid, n.o.s. (Acetone, Ethyl Alcohol)

## 15. REGULATORY INFORMATION

The preparation is classified as dangerous in accordance with Directive 1999/45/EC

### Labelling

Xi



F



### R -phrase(s)

R11 - Highly flammable  
R36 - Irritating to eyes  
R66 - Repeated exposure may cause skin dryness or cracking  
R67 - Vapors may cause drowsiness and dizziness

### S -phrase(s)

S 7 - Keep container tightly closed  
S16 - Keep away from sources of ignition. No smoking  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)  
S36/37 - Wear suitable protective clothing and gloves

### International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Acetone	200-662-2	-		X	X	-	X	X	X	X	KE-29367 X
Ethyl alcohol	200-578-6	-		X	X	-	X	X	X	X	KE-13217 X
Methyl alcohol	200-659-6	-		X	X	-	X	X	X	X	KE-23193 X



# SAFETY DATA SHEET

Gram Decolourizer

Revision Date 05-May-2011

## 16. OTHER INFORMATION

### Text of R phrases mentioned in Section 2-3

R11 - Highly flammable

R36 - Irritating to eyes

R66 - Repeated exposure may cause skin dryness or cracking

R67 - Vapors may cause drowsiness and dizziness

R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed

R39/23/24/25 - Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed

<b>Prepared By</b>	Regulatory Affairs
<b>Creation Date</b>	05-May-2011
<b>Revision Date</b>	05-May-2011
<b>Revision Summary</b>	"***", and red text indicates revision
<b>Restrictions on use</b>	No information available.
<b>Training advice</b>	No information available.
<b>Literary reference</b>	No information available.

### Disclaimer

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**End of Safety Data Sheet**

# SAFETY DATA SHEET

Creation Date 11-May-2011

Revision Date 11-May-2011

Revision Number 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product Name** Gram Iodine (Concentrate)  
**Cat No.** R40056  
**Synonyms** No information available.  
**Recommended Use** Laboratory chemicals

<b>Company</b>	Remel 12076 Santa Fe Drive Lenexa, KS 66215 United States Telephone: 1-800-255-6730 Fax:1-800-621-8251	<b>Entity / Business Name</b> Oxoid Ltd. Wade Road Basingstoke, Hants, UK RG24 8PW Telephone: +44 (0) 1256 841144
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**Emergency Telephone Number** Carechem 24: +44 (0) 1865 407333

## 2. HAZARDS IDENTIFICATION

The preparation is non-dangerous in accordance with Directive 1999/45/EC.

**R -phrase(s)**  
none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	Weight %	EC No.	Classification
Potassium iodide 7681-11-0	35	EEC No. 231-659-4	-
Iodine 7553-56-2	17	EEC No. 231-442-4	Xn;R20/21 N;R50

For the full text of the R phrases mentioned in this Section, see Section 16

# SAFETY DATA SHEET

Gram Iodine (Concentrate)

Revision Date 11-May-2011

## 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water. Get medical attention if symptoms occur..
<b>Inhalation</b>	Move to fresh air
<b>Notes to Physician</b>	Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

### Extinguishing media which must not be used for safety reasons

No information available.

### Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

<b>Flash Point</b>	Not applicable
<b>Method</b>	No information available.
<b>Autoignition Temperature</b>	No information available.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.
<b>Environmental Precautions</b>	Prevent further leakage or spillage if safe to do so. Should not be released into the environment.
<b>Methods for Containment and Clean Up</b>	Soak up with inert absorbent material. Keep in suitable and closed containers for disposal

# SAFETY DATA SHEET

Gram Iodine (Concentrate)

Revision Date 11-May-2011

## 7. HANDLING AND STORAGE

**Handling** Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

**Storage** Keep at temperatures between 15° and 30 °C.

**Specific use(s)** No information available.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure limits

Component	European Union	The United Kingdom	Belgium	France	Spain	Germany
Iodine		STEL: 0.1 ppm; 1.1mg/m <sup>3</sup>	TWA 0.1ppm; TWA 1mg/m <sup>3</sup>	VLCT: 0.1 ppm VLCT: 1 mg/m <sup>3</sup>	VLA-EC: 1 mg/m <sup>3</sup> VLA-EC: 0.1 ppm	TWA: 0.1 ppm TWA: 1.1 mg/m <sup>3</sup> skin absorber

Component	Italy	Portugal	The Netherlands	Finland	Austria
Iodine		Ceiling: 0.1 ppm	0.1ppm MAC; 1mg/m <sup>3</sup> MAC	STEL: 0.1 ppm STEL: 1.1 mg/m <sup>3</sup>	STEL: 1 mg/m <sup>3</sup> STEL: 0.1 ppm MAK: 0.1 ppm MAK: 1 mg/m <sup>3</sup> Ceiling: 0.1 ppm Ceiling: 1 mg/m <sup>3</sup>

Component	Switzerland	Poland	Norway	Ireland	Denmark	Australia
Iodine	STEL: 0.1 ppm STEL: 1 mg/m <sup>3</sup> MAK: 0.1 ppm MAK: 1 mg/m <sup>3</sup>	NDS: 1 mg/m <sup>3</sup>	Ceiling: 0.1 ppm Ceiling: 1 mg/m <sup>3</sup>	STEL: 0.1 ppm STEL: 1 mg/m <sup>3</sup>	Ceiling: 1 mg/m <sup>3</sup> Ceiling: 0.1 ppm	

### Occupational exposure controls

**Engineering Measures** Ensure adequate ventilation, especially in confined areas

### Personal Protective Equipment

#### Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

#### Eye Protection

Tightly fitting safety goggles

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

#### Hand Protection

Protective gloves

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls** No information available.

# SAFETY DATA SHEET

Gram Iodine (Concentrate)

Revision Date 11-May-2011

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Yellow-orange
pH	No information available.
Boiling Point/Range	Not applicable
Melting Point/Range	No information available.
Flash Point	Not applicable

## 10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Extremes of temperature and direct sunlight.
Incompatible Materials	Strong oxidizing agents, Ammonia, Reducing agents
Hazardous Decomposition Products	None under normal use
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	None under normal processing.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Iodine	14 g/kg ( Rat )		

### Chronic Toxicity

Carcinogenicity	There are no known carcinogenic chemicals in this product
Sensitization	No information available.
Neurological Effects	No information available.
Mutagenic Effects	No information available.

# SAFETY DATA SHEET

Gram Iodine (Concentrate)

Revision Date 11-May-2011

**Reproductive Effects** Experiments have shown reproductive toxicity effects on laboratory animals.

**Developmental Effects** No information available.

**Target Organs** Respiratory system, Central nervous system (CNS), Eyes, Central Vascular System (CVS), Skin.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Very toxic to aquatic organisms. However, at the concentration present, this preparation is not expected to present significant adverse environmental effects.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Potassium iodide		Onchorhynchus mykiss: LC50: 3200 mg/L/120h		
Iodine		Oncorhynchus mykiss: LC50 = 1,7 mg/l/96 h		EC50 = 0,2 mg/l/48 h

**Persistence and Degradability** No information available

**Bioaccumulative Potential** No information available.

**Mobility** No information available.

Component	log Pow
Potassium iodide	0.04
Iodine	2.49

## 13. DISPOSAL CONSIDERATIONS

**Waste from Residues / Unused Products** Dispose of in accordance with local regulations

**Contaminated Packaging** Empty containers should be taken for local recycling, recovery or waste disposal

## 14. TRANSPORT INFORMATION

**IMDG/IMO** Not regulated

**ADR** Not regulated

**IATA** Not regulated

# SAFETY DATA SHEET

Gram Iodine (Concentrate)

Revision Date 11-May-2011

## 14. TRANSPORT INFORMATION

## 15. REGULATORY INFORMATION

The preparation is non-dangerous in accordance with Directive 1999/45/EC

### Labelling

**R -phrase(s)**  
none

**S -phrase(s)**  
none

### International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Potassium iodide	231-659-4	-		X	X	-	X	X	X	X	KE-29149 X
Iodine	231-442-4	-		X	X	-	X	-	X	X	KE-21023 X

## 16. OTHER INFORMATION

### Text of R phrases mentioned in Section 2-3

R50 - Very toxic to aquatic organisms

R20/21 - Harmful by inhalation and in contact with skin

**Prepared By** Regulatory Affairs  
**Creation Date** 11-May-2011  
**Revision Date** 11-May-2011  
**Revision Summary** "\*\*\*\*", and red text indicates revision  
**Restrictions on use** No information available.  
**Training advice** No information available.  
**Literary reference** No information available.

# SAFETY DATA SHEET

**Gram Iodine (Concentrate)**

**Revision Date 11-May-2011**

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**End of Safety Data Sheet**



# SAFETY DATA SHEET

Creation Date 11-May-2011

Revision Date 11-May-2011

Revision Number 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product Name** Gram Safranin  
**Cat No.** R40058  
**Synonyms** No information available.  
**Recommended Use** Laboratory chemicals

<b>Company</b>	Remel 12076 Santa Fe Drive Lenexa, KS 66215 United States Telephone: 1-800-255-6730 Fax:1-800-621-8251	<b>Entity / Business Name</b> Oxoid Ltd. Wade Road Basingstoke, Hants, UK RG24 8PW Telephone: +44 (0) 1256 841144
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**Emergency Telephone Number** Carechem 24: +44 (0) 1865 407333

## 2. HAZARDS IDENTIFICATION

The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

**R -phrase(s)**  
R10 - Flammable

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Haz/Non-haz

Component	Weight %	EC No.	Classification
Ethyl alcohol 64-17-5	10	EEC No. 200-578-6	F;R11
Methyl alcohol 67-56-1	<1.00	EEC No. 200-659-6	F;R11 T;R23/24/25-39/23/24/25
Safranin O 477-73-6	0.25	-	Xi;R36/38

For the full text of the R phrases mentioned in this Section, see Section 16

# SAFETY DATA SHEET

Gram Safranin

Revision Date 11-May-2011

## 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water
<b>Inhalation</b>	Move to fresh air
<b>Notes to Physician</b>	Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

### Extinguishing media which must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire

### Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

<b>Flash Point</b>	48.9°C / 120°F
<b>Method</b>	Closed cup
<b>Autoignition Temperature</b>	No information available.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.
<b>Environmental Precautions</b>	Prevent further leakage or spillage if safe to do so
<b>Methods for Containment and Clean Up</b>	Soak up with inert absorbent material

# SAFETY DATA SHEET

Gram Safranin

Revision Date 11-May-2011

## 7. HANDLING AND STORAGE

<b>Handling</b>	Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.
<b>Storage</b>	Keep container tightly closed in a dry and well-ventilated place
<b>Specific use(s)</b>	No information available.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure limits

Component	European Union	The United Kingdom	Belgium	France	Spain	Germany
Ethyl alcohol		TWA: 1000 ppm TWA: 1920 mg/m <sup>3</sup> TWA WEL - STEL: 3000 ppm STEL: 5760 mg/m <sup>3</sup> STEL	TWA: 1907 mg/m <sup>3</sup> TWA: 1000 ppm	VME: 1000 ppm VME: 1900 mg/m <sup>3</sup> VLCT: 5000 ppm VLCT: 9500 mg/m <sup>3</sup>	VLA-ED: 1000 ppm VLA-ED: 1910 mg/m <sup>3</sup>	500 ppm TWA; 960 mg/m <sup>3</sup> TWA
Methyl alcohol	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> Skin	WEL - TWA: 200 ppm TWA: 266 mg/m <sup>3</sup> TWA WEL - STEL: 250 ppm STEL: 333 mg/m <sup>3</sup> STEL	STEL: 250 ppm STEL: 333 mg/m <sup>3</sup> TWA: 266 mg/m <sup>3</sup> TWA: 200 ppm	VME: 200 ppm VME: 260 mg/m <sup>3</sup> VLCT: 1000 ppm VLCT: 1300 mg/m <sup>3</sup>	VLA-ED: 266 mg/m <sup>3</sup> VLA-ED: 200 ppm	200 ppm TWA; 270 mg/m <sup>3</sup> TWA Skin absorber

Component	Italy	Portugal	The Netherlands	Finland	Austria
Ethyl alcohol		TWA: 1000 ppm	STEL: 1900 mg/m <sup>3</sup> TWA: 260 mg/m <sup>3</sup>	TWA: 1900 mg/m <sup>3</sup> TWA: 1000 ppm STEL: 2500 mg/m <sup>3</sup> STEL: 1300 ppm	STEL: 2000 ppm STEL: 3800 mg/m <sup>3</sup> MAK: 1000 ppm MAK: 1900 mg/m <sup>3</sup>
Methyl alcohol	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	STEL: 250 ppm TWA: 200 ppm	STEL: 520 mg/m <sup>3</sup> TWA: 260 mg/m <sup>3</sup>	TWA: 270 mg/m <sup>3</sup> TWA: 200 ppm STEL: 330 mg/m <sup>3</sup> STEL: 250 ppm	STEL: 1040 mg/m <sup>3</sup> STEL: 800 ppm MAK: 260 mg/m <sup>3</sup> MAK: 200 ppm

Component	Switzerland	Poland	Norway	Ireland	Denmark	Australia
Ethyl alcohol	STEL: 1000 ppm STEL: 1920 mg/m <sup>3</sup> MAK: 960 mg/m <sup>3</sup> MAK: 500 ppm	NDS: 1900 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 950 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	TWA: 1900 mg/m <sup>3</sup> TWA: 1000 ppm	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>

# SAFETY DATA SHEET

Gram Safranin

Revision Date 11-May-2011

Component	Switzerland	Poland	Norway	Ireland	Denmark	Australia
Methyl alcohol	STEL: 1040 mg/m <sup>3</sup> STEL: 800 ppm MAK: 200 ppm MAK: 260 mg/m <sup>3</sup>	NDSch: 300 mg/m <sup>3</sup> NDS: 100 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 130 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 310 mg/m <sup>3</sup> Skin	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	STEL: 250 ppm STEL: 328 mg/m <sup>3</sup> TWA: 262 mg/m <sup>3</sup> TWA: 200 ppm

## Occupational exposure controls

### Engineering Measures

Ensure adequate ventilation, especially in confined areas

### Personal Protective Equipment

#### Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

#### Eye Protection

Tightly fitting safety goggles

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

#### Hand Protection

Protective gloves

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

### Environmental exposure controls

No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical State

Liquid

### Appearance

Clear Red

### pH

No information available.

### Boiling Point/Range

Not applicable

### Melting Point/Range

No information available.

### Flash Point

48.9°C / 120°F

### Method

Closed cup

## 10. STABILITY AND REACTIVITY

### Stability

Stable under normal conditions.

### Conditions to Avoid

Incompatible products

### Incompatible Materials

Strong oxidizing agents

### Hazardous Decomposition Products

Carbon oxides

### Hazardous Polymerization

No information available

### Hazardous Reactions .

None under normal processing.

# SAFETY DATA SHEET

Gram Safranin

Revision Date 11-May-2011

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethyl alcohol	7060 mg/kg ( Rat )		20000 ppm/10H ( Rat )
Methyl alcohol	5628 mg/kg ( Rat )	15800 mg/kg ( Rabbit )	64000 ppm ( Rat ) 4 h 83.2 mg/L ( Rat ) 4 h

### Chronic Toxicity

#### Carcinogenicity

There are no known carcinogenic chemicals in this product

#### Sensitization

No information available.

#### Neurological Effects

No information available.

#### Mutagenic Effects

No information available.

#### Reproductive Effects

No information available.

#### Developmental Effects

No information available.

#### Target Organs

Blood, Liver, Respiratory system, Central nervous system (CNS), Eyes, Reproductive System, Gastrointestinal tract (GI), Skin, Optic nerve.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

. Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Ethyl alcohol		Leucidus idus: LC50 = 8.14 mg/L/48h	Photobacterium phosphoreum: EC50 = 34634 mg/L/30 min Photobacterium phosphoreum: EC50 = 35470 mg/L/5 min	EC50 = 9268 mg/L/48h EC50 = 10800 mg/L/24h
Methyl alcohol		Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	EC50 > 10000 mg/L 24h

# SAFETY DATA SHEET

Gram Safranin

Revision Date 11-May-2011

**Persistence and Degradability** No information available

**Bioaccumulative Potential** No information available.

**Mobility** No information available.

Component	log Pow
Ethyl alcohol	-0.32
Methyl alcohol	-0.74

## 13. DISPOSAL CONSIDERATIONS

**Waste from Residues / Unused Products** Dispose of as hazardous waste in compliance with local and national regulations

**Contaminated Packaging** Empty containers should be taken for local recycling, recovery or waste disposal

## 14. TRANSPORT INFORMATION

### IMDG/IMO

**UN-No** UN1170  
**Hazard Class** 3  
**Packing Group** III  
**Proper Shipping Name** ETHANOL SOLUTION

### ADR

**UN-No** UN1170  
**Hazard Class** 3  
**Packing Group** III  
**Proper Shipping Name** ETHANOL SOLUTION

### IATA

**UN-No** UN1170  
**Hazard Class** 3  
**Packing Group** III  
**Proper Shipping Name** ETHANOL SOLUTION

## 15. REGULATORY INFORMATION

The preparation is classified as dangerous in accordance with Directive 1999/45/EC

# SAFETY DATA SHEET

Gram Safranin

Revision Date 11-May-2011

## Labelling

### R -phrase(s)

R10 - Flammable

### S -phrase(s)

S 7 - Keep container tightly closed

S16 - Keep away from sources of ignition. No smoking

S24/25 - Avoid contact with skin and eyes

## International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Ethyl alcohol	200-578-6	-		X	X	-	X	X	X	X	KE-13217 X
Methyl alcohol	200-659-6	-		X	X	-	X	X	X	X	KE-23193 X

## 16. OTHER INFORMATION

### Text of R phrases mentioned in Section 2-3

R10 - Flammable

R11 - Highly flammable

R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed

R39/23/24/25 - Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed

R36/38 - Irritating to eyes and skin

Prepared By	Regulatory Affairs
Creation Date	11-May-2011
Revision Date	11-May-2011
Revision Summary	"***", and red text indicates revision
Restrictions on use	No information available.
Training advice	No information available.
Literary reference	No information available.

# SAFETY DATA SHEET

Gram Safranin

Revision Date 11-May-2011

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**End of Safety Data Sheet**