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HS802-S Gram's Stain Pack (Crystal Violet) counterstain: Safranin

Stain pack consists of:

HS230 – Crystal Violet (Gram)

HS305Y – Gram's Iodine 25 x Concentrate

HS305X – Gram's Iodine Diluent

HS310 – Gram's Decolouriser

HS720 – Safranin O (Gram)

Issue 6/05.2016

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SAFETY DATA SHEET

This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with this material, as well as describing potential risks to the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material.

This Safety Data Sheet is prepared in accordance with formatting described in the REACH Regulation (EC) No 1907/2006 and (EU) No 453/2010

SECTION 1. Identification of the substances/mixture and of the company/undertaking

1.1 Product Identifier

Product Name: **GRAM'S IODINE 25x Concentrate**
Product Number: **HS305Y**
Brand: **TCS Biosciences**
IUPAC name **not determined**

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

Identified uses: For professional use only.

1.3 Details of the supplier of the safety data sheet

Company: TCS Biosciences Ltd
Botolph Claydon, Buckingham,
MK18 2LR, UK
Telephone: +44 (0) 1296 714222
Email address: sales@tcsgroup.co.uk
Web address: www.tcsbiosciences.co.uk

1.4 Emergency telephone number

In case of emergency: 24hr contact number: +44 (0)1296 711205

SECTION 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification in accordance with the Classification Labelling and Packaging Regulation EC (no) 1272/2008:

Skin Irritation (Category 2)
Eye Irritation (Category 2)

2.1 Label Elements

Labelling in accordance with the Classification Labelling and Packaging Regulation EC (no) 1272/2008:

Pictogram:

Signal Word: **Warning**

Hazard Statement(s):

H315	Causes skin irritation.
H319	Causes serious eye irritation

Precautionary Statement(s)

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards:
Recommend restriction to professional users only. Dyes and Stains by their physical nature may result in permanent staining if in contact with skin and clothing.

SECTION 3. Composition/Information on Ingredients

3.2 Mixtures
Synonyms: None

Name	EC No	CAS-No	Content	Classification in accordance with CLP 1272/2008
Potassium Iodide	231-659-4	7681-11-0	<20%	Acute tox 4 (oral); H302. Eye irrit 2; H319, Skin irrit 2; H315.
Iodine	231-442-4	7553-56-2	<10%	Acute tox 4 (inhal);H332. Acute tox 4 (dermal);H312. Aquatic acute1;H400.

Refer to section 16 for additional classification information.

SECTION 4. First Aid Measures

4.1 Description of first aid measures
If exposed keep patient calm and seek immediate medical attention. Show this safety data sheet to doctor/physician in attendance.

If inhaled
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If not breathing, give artificial respiration. Get medical advice/attention.

In case of skin contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

In case of eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists get medical advice/attention.

If swallowed
IF SWALLOWED: Do NOT induce vomiting. Rinse out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed
Prolonged exposure to iodides may produce iodism in sensitive individuals. Symptoms of exposure include: skin rash, running nose, headache and irritation of the mucous membranes.

4.3 Indication of immediate medical attention and special treatment needed
No data available.

SECTION 5. Fire-Fighting Measures

5.1 Suitable extinguishing media
Use alcohol-resistant foam or fine water spray, dry chemical powder or carbon dioxide
For large fires immediately alert fire emergency services. Evacuate personnel to safe area.

5.2 Special hazards arising from the substance or mixture
May emit toxic fumes under fire, Hydrogen Iodide.

5.3 Precautions for fire-fighters
Wear self-contained breathing apparatus /protective clothing. Avoid contact with skin and eyes.

5.4 Further information
No data available.

SECTION 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Observe all warning labels on container. Avoid contact with skin and eyes. Avoid breathing dust/fumes/gas/mist/vapours/spray; ensure adequate ventilation. Wear suitable protective clothing, gloves and eye/face protection. Wash hands thoroughly after handling.

6.2 Environmental precautions
Avoid discharge to the environment. Do not let undiluted product or large quantities enter drains or water course. Prevent further leakage or spillage where safe to do so. Inform responsible authorities as appropriate.

6.3 Methods and materials for containment and cleaning up
Absorb spillage with appropriate absorbent material e.g. vermiculite or sand; and dispose into suitably labelled closed containers for disposal according to local environmental regulations. Wash spillage site with water and appropriate detergent and retain washings as environmentally hazardous waste.

6.4 Reference to other sections
For disposal refer to section 13.

SECTION 7. Handling and Storage

7.1 Precautions for safe handling
Take precaution to avoid exposure. Avoid contact with eyes and skin. Avoid spillage and breathing dust or aerosols. Ensure adequate ventilation of the working area. Wear appropriate personal protective equipment provided. Avoid prolonged or repeated exposure.
Wash hands thoroughly after handling. Do not eat or drink when using this product.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well-ventilated place. Replace container lid after use and keep container tightly closed to prevent leakage.

7.3 Specific end uses Recommend restriction to professional users only.

SECTION 8. Exposure Controls//Personal Protection

8.1 Control parameters

Components with workplace control parameters
TWA Time Weighted Average Concentration (Long Term Exposure Limit)
STEL Short Term Exposure Limit
LTEL Long Term Exposure Limit

Workplace Exposure Levels: WEL EH40/2005
Iodine CAS-No. 7553-56-2 EC-No. 231-442-4

TWA	STEL	UK	:	0.1ppm	1 mg/m^3

8.2 Exposure controls
Appropriate engineering controls
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

Personal protective equipment
Eye/face protection
Avoid exposure to sprays/mist/aerosols. Use face shield and/or safety goggles for eye protection complying with appropriate government standards such as EN166 (EU) as required.

Skin Protection
Handle with chemical-resistant, impervious gloves complying with appropriate government standards: EU Directive 89/686/EEC; standard EN 374. Inspect gloves prior to use to ensure adequate protection. Use proper glove removal technique to avoid skin contact with substance/mixture. Dispose of contaminated gloves after use in accordance with local and national applicable laws and good laboratory practises. Wash and dry hands thoroughly after handling. Promptly remove any contaminated clothing and clean appropriately before reuse.

Body Protection
Use chemically resistant protective clothing with closed cuffs and closed neck, appropriate to the concentration /amount of the dangerous substance at the specific workplace.

Respiratory protection
Respiratory protection is not required. Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation. For nuisance exposures use respirator and/ or air hood where local exhaust ventilation is inadequate Use products tested and approved to appropriate government standards such as NIOSH (US) or EN 143 / EN 14387 (EU).

8.2.3 Environmental Exposure Controls Do not empty in to drains.

SECTION 9. Physical and Chemical Properties

The physical/chemical properties of this product has not been fully investigated. Judgements have been made based upon consideration of its major component(s).

9.1 Information on basic physical and chemical properties

a) Appearance Form:	**Deep orange-Brown; liquid**
b) Odour:	**None**
c) Odour Threshold:	No data available
d) pH	No data available
e) Melting point:	No data available
f) Boiling point:	No data available
g) Flashpoint:	No data available
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/lower flammability limits:	No data available
k) Vapour pressure:	No data available
l) Vapour density:	No data available
m) Relative density:	No data available
n) Water solubility:	**Soluble**
o) Partition coefficient (log Kow):	No data available
p) Autoignition temperature:	No data available
q) Decomposition temperature:	No data available
r) Viscosity:	No data available
s) Explosive properties:	No data available
t) Oxidizing properties:	No data available

9.2 Other information

Particle Size	No data available

SECTION 10. Stability and Reactivity

10.1	**Reactivity**	No data available
10.2	**Chemical stability**	Stable under specified conditions of use and storage
10.3	**Possibility of hazardous reactions**	No data available
10.4	**Conditions to avoid**	No data available.
10.5	**Incompatible materials**	Strong oxidising agents.
10.6	**Hazardous decomposition products**	No data available The nature of released decomposition products has not been determined.

SECTION 11. Toxicological Information

11.1 Information on toxicological effects

The toxicological properties of this product has not been fully investigated. Judgements have been made based upon consideration of its major component(s).

Toxicokinetics

(a) Acute toxicity	Oral, mouse: LD50=1,000mg/kg bw (Potassium Iodide) Dermal, rabbit: LD50 = 1425 mg/kg bw (Iodine) Inhalation, rat: LC50 = 4.588 mg/L 4h (Iodine).
(b) Skin corrosion/irritation	No data available
(c) Serious eye damage/ eye irritation	No data available
(d) Respiratory or skin sensitization	No data available

(e) Germ cell mutagenicity		No data available
(f) Carcinogenicity		– not listed: IARC, ACGIH, NIOSH, OSHA.
Tumourigenic	**IARC:**	No component of this product at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen.
(g) Reproductive toxicity		No data available
(h) STOT Specific target organ toxicity - single exposure		No data available
(i) STOT Specific target organ toxicity - repeated exposure		No data available
(j) Aspiration hazard		No data available

Potential health effects

Inhalation	Maybe harmful if inhaled. Contains components which may cause irritation to mucous membranes and upper respiratory tract.
Ingestion	Maybe harmful if ingested. Contains components which may cause vomiting or other adverse effects such as diarrhoea.
Skin	Causes irritation in contact with skin.
Eyes	Causes serious eye irritation.

Signs and Symptoms of Exposure

Prolonged exposure to iodides may produce iodism in sensitive individuals. Symptoms of exposure include: skin rash, running nose, headache and irritation of the mucous membranes.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: Iodine – NN1575000

SECTION 12. Ecological Information

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

12.1	**Aquatic Toxicity**	**(CAS-No 7553-56-2)**
	Toxicity to fish	LC50 - Oncorhynchus mykiss (rainbow trout) - 1.7 mg/l - 96h
	Toxicity to daphnia	EC50 - Daphnia magna (Water flea) - 0.2 mg/l - 48h
	And other aquatic invertebrates	EC50 - Algae - 0.13mg/l – 72h
12.2	**Persistence and degradability**	No data available.
12.3	**Bioaccumulative potential**	No data available.
		Do not let undiluted product or large quantities enter drains or water course. Inform responsible authorities as appropriate.
12.4	**Mobility in soil**	No data available
12.5	**Results of PBT and vPvB assessment**	No data available
12.6	**Other adverse effects**	Iodine - Very toxic to aquatic

SECTION 13. Disposal Considerations

13.1 Waste treatment methods

Product	Dispose of as hazardous waste via a licensed waste material processor. Comply with local regulations.
Contaminated Packaging	Dispose of as unused product.

SECTION 14. Transport Information

Not regulated as dangerous goods under ADR/RID, IMDG, or IATA

		ADR/RID	IMDG	IATA
14.1	**UN-Number**	n/a	n/a	n/a
14.2	**UN proper shipping name**	n/a	n/a	n/a
14.3	**Transport hazard class(es)**	n/a	n/a	n/a
14.4	**Packaging group**	n/a	n/a	n/a
14.5	**Environmental hazards**	No	Marine pollutant: No	No
14.6	**Special precautions for users**	No data available		
14.7	**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**	No data available		

SECTION 15. Regulatory information

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 and (EU) 453/2010

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
All components are listed as existing substances in Europe

15.2 Chemical Safety Assessment
A Chemical Safety Assessment has not been carried out for this product.

SECTION 16. Other information

Additional information from Section 3

Hazard Statements

H332	Harmful if inhaled.
H312	Harmful in contact with skin.
H400	Very toxic to aquatic life.
H319	Causes serious eye irritation.
H302	Harmful if swallowed.
H315	Causes skin irritation.

Further information
The information herein is provided in good faith and is correct to the best of our knowledge but makes no representation as to its completeness or accuracy. This safety data sheet is intended for use only as a guide for the appropriate precautionary handling of material by suitably trained persons.
TCS Biosciences Ltd shall not be held liable for any loss, injury or damage which may result from its use.

Issue 1: created 3.12.12
Issue 2: created 24.07.2013
Version 3 created 5.05.2016, change to hazards of components.

HS305Y end

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SAFETY DATA SHEET

This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with this material, as well as describing potential risks to the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material.

This Safety Data Sheet is prepared in accordance with formatting described in the REACH Regulation (EC) No 1907/2006 and (EU) No 453/2010

SECTION 1. Identification of the substances/mixture and of the company/undertaking

1.1 Product Identifier

Product Name: **Grams Iodine Diluent**
Product Number: **HS305X**
Brand: **TCS Biosciences**
IUPAC name **not determined**

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

Identified uses: Laboratory Reagent

1.3 Details of the supplier of the safety data sheet

Company: TCS Biosciences Ltd
Botolph Claydon, Buckingham,
MK18 2LR, UK
Telephone: +44 (0) 1296 714222
Email address: sales@tcsgroup.co.uk
Web address: www.tcsbiosciences.co.uk

1.4 Emergency telephone number

In case of emergency: 24hr contact number: +44 (0)1296 711205

SECTION 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification in accordance with the Classification Labelling and Packaging Regulation (EC) No 1272/2008:

This mixture is not classified as hazardous according to regulation (EC) No. 1272/2008

Classification according to Directive 1999/45//EEC and its amendments:

This mixture is not classified as dangerous according to Directive 67/548/EEC and its amendments.

2.2 Label Elements

This mixture is not considered hazardous and is not required to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards: none

SECTION 3. Composition/Information on Ingredients

3.2 Mixtures

Synonyms: None

Contains no hazardous products.

In accordance with DSD 67/548/EEC
In accordance with CLP 1272/2008

SECTION 4. First Aid Measures

4.1 Description of first aid measures

If exposed keep patient calm and seek immediate medical advice where irritation persists. Have product container or label at hand. Show this safety data sheet to doctor/physician in attendance.

If inhaled

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Get medical advice/attention.

In case of skin contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Wash with plenty of soap and water. Wash contaminated clothing before reuse.

In case of eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing. If eye irritation persists get medical advice/attention.

If swallowed

Do NOT induce vomiting. Rinse out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical advice/attention if irritation persists.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of immediate medical attention and special treatment needed

No data available.

SECTION 5. Fire-Fighting Measures

5.1 Suitable extinguishing media

Use alcohol-resistant foam or fine water spray, dry chemical powder or carbon dioxide
For large fires immediately alert fire emergency services. Evacuate personnel to safe area.

5.2 Special hazards arising from the substance or mixture

none

5.3 Precautions for fire-fighters

Wear self-contained breathing apparatus /protective clothing. Avoid contact with skin and eyes.

5.4 Further information

No data available.

SECTION 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Wash hands thoroughly after handling.

6.2 **Environmental precautions** None.

6.3 Methods and materials for containment and cleaning up
Wash spillage site with water and appropriate detergent.

6.4 Reference to other sections
For disposal refer to section 13.

SECTION 7. Handling and Storage

7.1 Precautions for safe handling
Wash hands thoroughly after handling

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well-ventilated place.

7.3 Specific end uses
No data available

SECTION 8. Exposure Controls//Personal Protection

8.1 Control parameters

Components with workplace control parameters
TWA Time Weighted Average Concentration (Long Term Exposure Limit)
STEL Short Term Exposure Limit
LTEL Long Term Exposure Limit

Methanol can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

8.2 Exposure controls
Appropriate engineering controls
None.

Personal protective equipment
Eye/face protection
Avoid exposure to sprays/mist/aerosols.

Skin Protection
Handle with gloves complying with appropriate government standards:

Body Protection
Use protective clothing with closed cuffs and closed neck..

Respiratory protection
Respiratory protection is not required.

8.2.3 Environmental Exposure Controls None.

SECTION 9. Physical and Chemical Properties

The physical/chemical properties of this product has not been fully investigated. Judgements have been made based upon consideration of its major component(s).

9.1 Information on basic physical and chemical properties

a) Appearance Form:	**Clear liquid**
b) Odour:	**None**
c) Odour Threshold:	No data available
d) pH	No data available

e) Melting point:	No data available
f) Boiling point:	No data available
g) Flashpoint:	No data available
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/lower flammability limits:	No data available
k) Vapour pressure:	No data available
l) Vapour density:	No data available
m) Relative density:	No data available
n) Water solubility:	**Very soluble**
o) Partition coefficient (log Kow):	No data available
p) Autoignition temperature:	No data available
q) Decomposition temperature:	No data available
r) Viscosity:	No data available
s) Explosive properties:	No data available
t) Oxidizing properties:	No data available

9.2 Other information

Particle Size No data available

SECTION 10. Stability and Reactivity

10.1	**Reactivity**	No data available
10.2	**Chemical stability**	Stable under specified conditions of use and storage
10.3	**Possibility of hazardous reactions**	No data available
10.4	**Conditions to avoid**	No data available.
10.5	**Incompatible materials**	No data available
10.6	**Hazardous decomposition**	No data available

SECTION 11. Toxicological Information

11.1 Information on toxicological effects

Toxicokinetics

(a) Acute toxicity	No data available
(b) Skin corrosion/irritation	No data available
(c) Serious eye damage/ eye irritation	No data available
(d) Respiratory or skin sensitization	No data available
(e) Germ cell mutagenicity	No data available
(f) Carcinogenicity	No data available
RTECS criteria:	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 or EC.
(g) Reproductive toxicity	No data available
(h) STOT Specific target organ toxicity - single exposure	No data available
(i) STOT Specific target organ toxicity - repeated exposure	No data available
(j) Aspiration hazard	No data available

Potential health effects

Inhalation	Maybe harmful if inhaled. Contains components which may cause irritation to mucous membranes and upper respiratory tract.
Ingestion	Maybe harmful if ingested. Contains components which may cause vomiting or other adverse effects such as diarrhoea.
Skin	May cause irritation with prolonged contact with skin.

Eyes May cause eye irritation.

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

Additional Information

SECTION 12. Ecological Information

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

12.1 Aquatic Toxicity No data available. Adverse ecological effects cannot be excluded in the event of improper handling or disposal.

12.2 Persistence and degradability No data available.

12.3 Bioaccumulative potential No data available.
Do not let undiluted product or large quantities enter drains or water course. Inform responsible authorities as appropriate.

12.4 Mobility in soil No data available

12.5 Results of PBT and vPvB assessment No data available

12.6 Other adverse effects No data available

SECTION 13. Disposal Considerations

13.1 Waste treatment methods

Product Dispose of as hazardous waste via a licensed waste material processor. Comply with local regulations.

Contaminated Packaging Dispose of as unused product.

SECTION 14. Transport Information

Not regulated as dangerous goods under ADR/RID, IMDG, or IATA

		ADR/RID	IMDG	IATA
14.1	UN-Number	n/a	n/a	n/a
14.2	UN proper shipping name	n/a	n/a	n/a
14.3	Transport hazard class(es)	n/a	n/a	n/a
14.4	Packaging group	n/a	n/a	n/a
14.5	Environmental hazards	No	Marine pollutant: No	No
14.6	Special precautions for users	No data available		
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No data available		

SECTION 15. Regulatory information

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 and (EU) 453/2010

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
All components are listed as existing substances in Europe

15.2 Chemical Safety Assessment
A Chemical Safety Assessment has not been carried out for this product.

SECTION 16. Other information

Further information

The information herein is provided in good faith and is correct to the best of our knowledge but makes no representation as to its completeness or accuracy. This safety data sheet is intended for use only as a guide for the appropriate precautionary handling of material by suitably trained persons.
TCS Biosciences Ltd shall not be held liable for any loss, injury or damage which may result from its use.

Issue 1: created 24.07.2013

HS305X end

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SAFETY DATA SHEET

This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with this material, as well as describing potential risks to the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material.

This Safety Data Sheet is prepared in accordance with formatting described in the REACH Regulation (EC) No 1907/2006 and (EU) No 453/2010

SECTION 1. Identification of the substances/mixture and of the company/undertaking

1.1 Product Identifier

Product Name: **SAFRANIN O (GRAM)**
Product Number: **HS720**
Brand: **TCS Biosciences**
IUPAC name **not determined**

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

Identified uses: Laboratory Reagent, for professional use only.

1.3 Details of the supplier of the safety data sheet

Company: TCS Biosciences Ltd
Botolph Claydon, Buckingham,
MK18 2LR, UK
Telephone: +44 (0) 1296 714222
Email address: sales@tcsgroup.co.uk
Web address: www.tcsbiosciences.co.uk

1.4 Emergency telephone number

In case of emergency: 24hr contact number: +44 (0)1296 711205

SECTION 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification in accordance with the Classification Labelling and Packaging Regulation (EC) No 1272/2008:

This mixture is not classified as hazardous according to regulation (EC) No. 1272/2008

Classification according to Directive 1999/45//EEC and its amendments:

This mixture is not classified as dangerous according to Directive 67/548/EEC and its amendments.

2.2 Label Elements

This mixture is not considered hazardous and is not required to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards: Dyes and Stains by their physical nature may result in permanent staining in contact with skin and clothing

SECTION 3. Composition/Information on Ingredients

3.2 Mixtures

Synonyms: Gram's Safranin

Component	CAS-No.	EC No	Conc	Classification In accordance with CLP 1272/2008
Ethanol	64-17-5	200-578-6	<2%	Flam. Liq 2; H225;
Methanol	67-56-1	200-659-6	<0.1%	Flam. Liq 2; H225 Acute tox 3;H301,H311,H331 STOT SE1:H370
Safranin O (Basic Red 2)	477-73-6	207-518-8	<1%	Eye Dam.1; H318

Component	CAS-No.	EC No	Conc.	Classification In accordance with DSD 67/548/EEC
Ethanol	64-17-5	200-578-6	<2%	F; R11
Methanol	67-56-1	200-659-6	<0.1%	F; T; R11; R23/24/25; R39/23/24/25
Safranin O (Basic Red 2)	477-73-6	207-518-8	<1%	Xi; R41

Refer to section 16 for full text of the H-statements and R-statements mentioned in this section.

SECTION 4. First Aid Measures

4.1 Description of first aid measures

If exposed keep patient calm and seek immediate medical advice where irritation persists. Have product container or label at hand. Show this safety data sheet to doctor/physician in attendance.

If inhaled

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Get medical advice/attention.

In case of skin contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Wash with plenty of soap and water. Wash contaminated clothing before reuse.

In case of eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing. If eye irritation persists get medical advice/attention.

If swallowed

Do NOT induce vomiting. Rinse out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical advice/attention if irritation persists.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of immediate medical attention and special treatment needed

No data available.

SECTION 5. Fire-Fighting Measures

5.1 Suitable extinguishing media
Use alcohol-resistant foam or fine water spray, dry chemical powder or carbon dioxide
For large fires immediately alert fire emergency services. Evacuate personnel to safe area.

5.2 Special hazards arising from the substance or mixture
May emit toxic fumes under fire.

5.3 Precautions for fire-fighters
Wear self-contained breathing apparatus /protective clothing. Avoid contact with skin and eyes.

5.4 Further information
No data available.

SECTION 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Wash hands thoroughly after handling. Avoid contact with skin and eyes. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe area.

6.2 Environmental precautions
Do not let undiluted product or large quantities enter drains or water course. Inform responsible authorities as appropriate.

6.3 Methods and materials for containment and cleaning up
Absorb spillage with appropriate absorbent material e.g. vermiculite or sand; and dispose into suitably labelled closed containers for disposal according to local regulations. Wash spillage site with water and appropriate detergent.

6.4 Reference to other sections
For disposal refer to section 13.

SECTION 7. Handling and Storage

7.1 Precautions for safe handling
Ensure adequate ventilation. Wear appropriate personal protective equipment provided. Avoid formation of aerosols. Avoid prolonged or repeated exposure. Wash hands thoroughly after handling

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well-ventilated place. Replace container lid after use and keep container tightly closed to prevent leakage.

7.3 Specific end uses
No data available

SECTION 8. Exposure Controls//Personal Protection

8.1 Control parameters

Components with workplace control parameters
TWA Time Weighted Average Concentration (Long Term Exposure Limit)
STEL Short Term Exposure Limit
LTEL Long Term Exposure Limit

Methanol can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

Workplace Exposure Levels: WEL EH40/2005 Methanol CAS No. 67-56-1

TWA	STEL UK 15-min:	250ppm	333 mg/m^3
TWA	LTEL Europe 8-h:	200ppm	266 mg/m^3

Workplace Exposure Levels: WEL EH40/2005 Ethanol CAS No. 64-17-5

TWA	LTEL UK 8-hour:	1000ppm	1920 mg/m^3

8.2 Exposure controls

Appropriate engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

Personal protective equipment

Eye/face protection

Avoid exposure to sprays/mist/aerosols. Use face shield and/or safety goggles for eye protection complying with appropriate government standards such as EN166 (EU).

Skin Protection

Handle with chemical-resistant, impervious gloves or gauntlets complying with appropriate government standards: EU Directive 89/686/EEC; standard EN 374. Inspect gloves prior to use to ensure adequate protection. Use proper glove removal technique to avoid skin contact with substance/mixture. Dispose of contaminated gloves after use in accordance with local and national applicable laws and good laboratory practises. Wash and dry hands thoroughly after handling. Promptly remove any contaminated clothing and clean appropriately before reuse.

Body Protection

Use chemically resistant complete suit or protective clothing with closed cuffs and closed neck, appropriate to the concentration /amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation. For nuisance exposures use respirator and/ or air hood where local exhaust ventilation is inadequate Use products tested and approved to appropriate government standards such as NIOSH (US) or EN 143 / EN 14387 (EU).

8.2.3 Environmental Exposure Controls None.

SECTION 9. Physical and Chemical Properties

The physical/chemical properties of this product has not been fully investigated. Judgements have been made based upon consideration of its major component(s).

9.1 Information on basic physical and chemical properties

a) Appearance Form:	**Deep red liquid**
b) Odour:	**None**
c) Odour Threshold:	No data available
d) pH	No data available
e) Melting point:	No data available
f) Boiling point:	No data available
g) Flashpoint:	**≥ 60ºC (not tested)**
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/lower flammability limits:	No data available
k) Vapour pressure:	No data available
l) Vapour density:	No data available
m) Relative density:	No data available

n) Water solubility:	**Very soluble**
o) Partition coefficient (log Kow):	No data available
p) Autoignition temperature:	No data available
q) Decomposition temperature:	No data available
r) Viscosity:	No data available
s) Explosive properties:	No data available
t) Oxidizing properties:	No data available

9.2 Other information

Particle Size	No data available

SECTION 10. Stability and Reactivity

10.1	**Reactivity**	No data available
10.2	**Chemical stability**	Stable under specified conditions of use and storage
10.3	**Possibility of hazardous reactions**	No data available
10.4	**Conditions to avoid**	No data available.
10.5	**Incompatible materials**	Strong Oxidising agents
10.6	**Hazardous decomposition products**	Products of Carbon Oxides may be produced on burning or heating. The nature of released decomposition products has not been determined.

SECTION 11. Toxicological Information

11.1 Information on toxicological effects

The toxicological properties of this product has not been fully investigated. Judgements have been made based upon consideration of its major component(s).

Toxicokinetics

(a) Acute toxicity	**LD50 – rat – oral = 5628mg/kg (CAS 67-56-1)** **LC50 – rat – inhalation = 64000ppm 4 hrs (CAS 67-56-1)**
(b) Skin corrosion/irritation	No data available
(c) Serious eye damage/ eye irritation	**Safranin O(** Cas No 477-73-6) **eye – rabbit = severe**
(d) Respiratory or skin sensitization	No data available
(e) Germ cell mutagenicity	No data available
(f) Carcinogenicity	No data available
RTECS criteria:	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 or EC.
(g) Reproductive toxicity	No data available
(h) STOT Specific target organ toxicity - single exposure	No data available
(i) STOT Specific target organ toxicity - repeated exposure	No data available
(j) Aspiration hazard	No data available

Potential health effects

Inhalation	Maybe harmful if inhaled. Contains components which may cause irritation to mucous membranes and upper respiratory tract.
Ingestion	Maybe harmful if ingested. Contains components which may cause vomiting or other adverse effects such as diarrhoea.
Skin	May cause irritation with prolonged contact with skin.
Eyes	May cause eye irritation.

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

Additional Information None

SECTION 12. Ecological Information

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

12.1	**Aquatic Toxicity**	No data available. Adverse ecological effects cannot be excluded in the event of improper handling or disposal.
12.2	**Persistence and degradability**	No data available.
12.3	**Bioaccumulative potential**	No data available. Do not let undiluted product or large quantities enter drains or water course. Inform responsible authorities as appropriate.
12.4	**Mobility in soil**	No data available
12.5	**Results of PBT and vPvB assessment**	No data available
12.6	**Other adverse effects**	No data available

SECTION 13. Disposal Considerations

13.1 **Waste treatment methods**

Product Dispose of as hazardous waste via a licensed waste material processor. Comply with local regulations.

Contaminated Packaging Dispose of as unused product.

SECTION 14. Transport Information .

Not regulated as dangerous goods under ADR/RID, IMDG, or IATA

		ADR/RID	IMDG	IATA
14.1	**UN-Number**	n/a	n/a	n/a
14.2	**UN proper shipping name**	n/a	n/a	n/a
14.3	**Transport hazard class(es)**	n/a	n/a	n/a
14.4	**Packaging group**	n/a	n/a	n/a
14.5	**Environmental hazards**	No	Marine pollutant: No	No
14.6	**Special precautions for users**	No data available		
14.7	**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**	No data available		

SECTION 15. Regulatory information .

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 and (EU) 453/2010

15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**
All components are listed as existing substances in Europe

15.2 **Chemical Safety Assessment**
A Chemical Safety Assessment has not been carried out for this product.

SECTION 16. Other information

Additional information from Section 3.2:

Text of H-Statements and R-phrases mentioned in Section 3

H Statements:

H225	Highly flammable liquid and vapour
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H370	Causes damage to organs.

R Phrases:

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.
R41	Risk of serious damage to eyes.

Further information
The information herein is provided in good faith and is correct to the best of our knowledge but makes no representation as to its completeness or accuracy. This safety data sheet is intended for use only as a guide for the appropriate precautionary handling of material by suitably trained persons.
TCS Biosciences Ltd shall not be held liable for any loss, injury or damage which may result from its use.

v1: created 10.12.2014
v2: created 22.10.2014 amended methanol/ethanol concentration

HS720 end

accuracy and quality as a science

SAFETY DATA SHEET

This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with this material, as well as describing potential risks to the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material.

This Safety Data Sheet is prepared in accordance with formatting described in the REACH Regulation (EC) No 1907/2006 and (EU) No 453/2010

SECTION 1. Identification of the substances/mixture and of the company/undertaking

1.1 Product Identifier

Product Name: **CRYSTAL VIOLET (Gram)**
Product Number: **HS230**
Brand: **TCS Biosciences**
IUPAC name **not determined**

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

Identified uses: For professional use only.

1.3 Details of the supplier of the safety data sheet

Company: TCS Biosciences Ltd
Botolph Claydon, Buckingham,
MK18 2LR, UK
Telephone: +44 (0) 1296 714222
Email address: sales@tcsgroup.co.uk
Web address: www.tcsbiosciences.co.uk

1.4 Emergency telephone number

In case of emergency: 24hr contact number: +44 (0)1296 711205

SECTION 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification in accordance with the Classification Labelling and Packaging Regulation (EC) No 1272/2008:

This mixture is not classified as hazardous according to Regulation (EC) No. 1272/2008

2.1 Label Elements

This mixture is not considered hazardous and is not required to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards: Dyes and Stains by their physical nature may result in permanent staining in contact with skin and clothing

SECTION 3. Composition/Information on Ingredients

3.2 Mixtures

Synonyms: None

Component	CAS-No.	EC No	Conc	Classification In accordance with CLP 1272/2008
Ethanol	64-17-5	200-578-6	<5%	Flam. Liq (2); H225;
Methanol	67-56-1	200-659-6	<1%	Flam. Liq (2); H225 Acute tox 3;H301,H311,H331 STOT SE1:H370
Crystal Violet (Basic Violet 3)	548-62-9	208-953-6	<0.5%	Carc 2; H351, Acute tox 4 ;H302, Eye Dam1;H318 Aquatic Chronic 1; H410 Aquatic Acute 1;H400

Refer to section 16 for full text of the H-statements mentioned in this section.

SECTION 4. First Aid Measures

4.1 Description of first aid measures

If exposed keep patient calm and seek immediate medical attention. Show this safety data sheet to doctor/physician in attendance.

If inhaled

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If not breathing, give artificial respiration. Get medical advice/attention.

In case of skin contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

In case of eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice/attention if irritation occurs.

If swallowed

IF SWALLOWED: Do NOT induce vomiting. Rinse out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of immediate medical attention and special treatment needed

No data available.

SECTION 5. Fire-Fighting Measures

5.1 Suitable extinguishing media

Use alcohol-resistant foam or fine water spray, dry chemical powder or carbon dioxide
For large fires immediately alert fire emergency services. Evacuate personnel to safe area.

5.2 Special hazards arising from the substance or mixture

May emit toxic fumes under fire: Carbon oxides, Nitrogen oxide.

5.3 Precautions for fire-fighters
Wear self-contained breathing apparatus /protective clothing. Avoid contact with skin and eyes.

5.4 Further information
No data available.

SECTION 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Observe all warning labels on container. Avoid contact with skin and eyes. Avoid breathing dust/fumes/gas/mist/vapours/spray; ensure adequate ventilation. Wear suitable protective clothing, gloves and eye/face protection. Wash hands thoroughly after handling. Evacuate personnel to safe area.

6.2 Environmental precautions
Avoid discharge to the environment. Prevent further leakage or spillage where safe to do so. Do not let product enter drains or water course. Inform responsible authorities as appropriate.

6.3 Methods and materials for containment and cleaning up
Absorb spillage with appropriate absorbent material e.g. vermiculite or sand; and dispose into suitably labelled closed containers for disposal according to local regulations. Wash spillage site with water and appropriate detergent and retain washings as environmentally hazardous waste.

6.4 Reference to other sections
For disposal refer to section 13.

SECTION 7. Handling and Storage

7.1 Precautions for safe handling
Take precaution to avoid exposure. Avoid contact with eyes and skin. Avoid spillage and breathing dust or aerosols. Ensure adequate ventilation of the working area. Wear appropriate personal protective equipment provided. Avoid prolonged or repeated exposure.
Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well-ventilated place. Replace container lid after use and keep container tightly closed to prevent leakage.

7.3 Specific end uses Recommend restriction to professional users only.

SECTION 8. Exposure Controls//Personal Protection

8.1 Control parameters

Components with workplace control parameters
TWA Time Weighted Average Concentration (Long Term Exposure Limit)
STEL Short Term Exposure Limit
LTEL Long Term Exposure Limit

Methanol can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

Workplace Exposure Levels: WEL EH40/2005 Methanol CAS No. 67-56-1 .

TWA	STEL UK 15-min:	250ppm	333 mg/m^3
TWA	LTEL UK 8-hour:	200ppm	266 mg/m^3
TWA	LTEL Europe 8-h:	200ppm	266 mg/m^3

Workplace Exposure Levels: WEL EH40/2005 Ethanol CAS No. 64-17-5 .
TWA LTEL UK 8-hour: 1000ppm 1920 mg/m^3

8.2 Exposure controls

Appropriate engineering controls
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

Personal protective equipment
Eye/face protection
Avoid exposure to sprays/mist/aerosols. Use face shield and/or safety goggles for eye protection complying with appropriate government standards such as EN166 (EU).

Skin Protection
Handle with chemical-resistant, impervious gloves complying with appropriate government standards: EU Directive 89/686/EEC; standard EN 374. Inspect gloves prior to use to ensure adequate protection. Use proper glove removal technique to avoid skin contact with substance/mixture. Dispose of contaminated gloves after use in accordance with local and national applicable laws and good laboratory practises. Wash and dry hands thoroughly after handling. Promptly remove any contaminated clothing and clean appropriately before reuse.

Body Protection
Use chemically protective clothing with closed cuffs and closed neck, appropriate to the concentration /amount of the dangerous substance at the specific workplace

Respiratory protection
Respiratory protection is not required. Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation. For nuisance exposures use respirator and/ or air hood where local exhaust ventilation is inadequate Use products tested and approved to appropriate government standards such as NIOSH (US) or EN 143 / EN 14387 (EU).

8.2.3 Environmental Exposure Controls Do not empty in to drains.

SECTION 9. Physical and Chemical Properties

The physical/chemical properties of this product has not been fully investigated. Judgements have been made based upon consideration of its major component(s).

9.1 Information on basic physical and chemical properties

a) Appearance Form:	**Deep violet liquid**
b) Odour:	**None detectable**
c) Odour Threshold:	No data available
d) pH	No data available
e) Melting point:	No data available
f) Boiling point:	No data available
g) Flashpoint:	No data available
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/lower flammability limits:	No data available
k) Vapour pressure:	No data available
l) Vapour density:	No data available
m) Relative density:	No data available
n) Water solubility:	No data available
o) Partition coefficient (log Kow):	No data available
p) Autoignition temperature:	No data available
q) Decomposition temperature:	No data available
r) Viscosity:	No data available

s) Explosive properties: No data available
t) Oxidizing properties: No data available

9.2 Other information
Particle Size No data available

SECTION 10. Stability and Reactivity

10.1 Reactivity No data available
10.2 Chemical stability Stable under specified conditions of use and storage
10.3 Possibility of hazardous reactions No data available
10.4 Conditions to avoid No data available.
10.5 Incompatible materials Strong Oxidising agents
10.6 Hazardous decomposition products Products of Carbon Oxides and Nitrogen Oxides may be produced on burning or heating. The nature of released decomposition products has not been determined.

SECTION 11. Toxicological Information

11.1 Information on toxicological effects
The toxicological properties of this product has not been fully investigated. Judgements have been made based upon consideration of its major component(s).

Toxicokinetics

(a) Acute toxicity — **Oral, rat: LD50=420 mg/kg (CAS No 548-62-9)**
CAS No 67-56-1 — **Oral, human: LDLo=300mg/kg**
Inh, monkey: LCLo=1000ppm
Derm, monkey:LDLo= 393mg/kg
(b) Skin corrosion/irritation — **Skin - rabbit – Irritating to skin – 24h (CAS No 67-56-1)**
(c) Serious eye damage/ eye irritation — No data available
(d) Respiratory or skin sensitization — No data available
(e) Germ cell mutagenicity — No data available
(f) Carcinogenicity — No data available
Tumourigenic
RTECS criteria: **Suspected of causing cancer (CAS No 548-62-9.)**
Equivocal tumourigenic agent - RTECS B09000000
(g) Reproductive toxicity — No data available
(h) STOT Specific target organ toxicity
- single exposure — No data available.
(i) STOT Specific target organ toxicity
- repeated exposure — No data available.
(j) Aspiration hazard — No data available.

Potential health effects

Inhalation Maybe harmful if inhaled. Contains components which may cause irritation to mucous membranes and upper respiratory tract.
Ingestion Maybe harmful if ingested. Contains components which may cause vomiting or other adverse effects such as diarrhoea.
Skin May cause irritation with prolonged contact with skin.
Eyes May cause eye irritation.

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

Additional Information

SECTION 12. Ecological Information

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

12.1	**Aquatic Toxicity**	**Crystal Violet** **EC50 = 0.21 mg/L Algae** **EC50 = 0.24 mg/L Daphnia** **NOEC 0.199 mg/L**
12.2	**Persistence and degradability**	No data available.
12.3	**Bioaccumulative potential**	No data available. Do not let undiluted product or large quantities enter drains or water course. Inform responsible authorities as appropriate.
12.4	**Mobility in soil**	No data available
12.5	**Results of PBT and vPvB assessment**	No data available
12.6	**Other adverse effects**	**CAS No 548-62-9 -** WGK 3 highly water endangering

SECTION 13. Disposal Considerations

13.1 Waste treatment methods

Product Dispose of as hazardous waste via a licensed waste material processor. Comply with local regulations.

Contaminated Packaging Dispose of as unused product.

SECTION 14. Transport Information

Not regulated as dangerous goods under ADR/RID, IMDG, or IATA

		ADR/RID	IMDG	IATA
14.1	**UN-Number**	n/a	n/a	n/a
14.2	**UN proper shipping name**	n/a	n/a	n/a
14.3	**Transport hazard class(es)**	n/a	n/a	n/a
14.4	**Packaging group**	n/a	n/a	n/a
14.5	**Environmental hazards**	No	Marine pollutant: No	No
14.6	**Special precautions for users**	No data available		
14.7	**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**	No data available		

SECTION 15. Regulatory information

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 and (EU) 453/2010

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
All components are listed as existing substances in Europe

15.2 Chemical Safety Assessment
A Chemical Safety Assessment has not been carried out for this product.

SECTION 16. Other information

Additional information from Sections 3.

Text of H-Statements mentioned in Section 3

H Statements:

H225	Highly flammable liquid and vapour
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H319	Causes eye irritation
H331	Toxic if inhaled.
H351	Suspected of causing cancer
H410	Very toxic to aquatic life with long lasting effects

Further information

The information herein is provided in good faith and is correct to the best of our knowledge but makes no representation as to its completeness or accuracy. This safety data sheet is intended for use only as a guide for the appropriate precautionary handling of material by suitably trained persons.
TCS Biosciences Ltd shall not be held liable for any loss, injury or damage which may result from its use.

V1: created 04.12.12
v2: created 09.07.13
v3: created 11.02.14 CLP Classification change following toxicity update.
V4 created 22.10.2014 amended methanol/ethanol concentration
V5: created 27.01.2016 removal of classification and labelling according to Directive 1999/45//EEC & 67/548/EEC; change to classification section 2.1; minor changes to sections 11, 12 & 16.

HS230 end

SAFETY DATA SHEET

This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with this material, as well as describing potential risks to the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material.

This Safety Data Sheet is prepared in accordance with formatting described in the REACH Regulation (EC) No 1907/2006 and (EU) No 453/2010

SECTION 1. Identification of the substances/mixture and of the company/undertaking

1.1 Product Identifier

Product Name: **GRAM'S DECOLOURISER**
Product Number: **HS310**
Brand: **TCS Biosciences**
IUPAC name **not determined**

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

Identified uses: For professional use only.

1.3 Details of the supplier of the safety data sheet

Company: TCS Biosciences Ltd
Botolph Claydon, Buckingham,
MK18 2LR, UK
Telephone: +44 (0) 1296 714222
Email address: sales@tcsgroup.co.uk
Web address: www.tcsbiosciences.co.uk

1.4 Emergency telephone number

In case of emergency: 24hr contact number: +44 (0)1296 711205

SECTION 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification in accordance with the Classification Labelling and Packaging Regulation (EC) No 1272/2008:

Flammable liquid (Category 2)
Eye Irritation (Category 2)
Specific Target Organ Toxicity - Single Exposure (Category 3)
Repeated exposure may cause skin dryness or cracking

2.2 Label Elements

Labelling in accordance with the Classification Labelling and Packaging Regulation EC (no) 1272/2008

Pictogram:

Signal Word: **Danger**

Hazard Statement(s):

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

Precautionary Statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P280	Wear protective gloves/protective clothing/eye protection/face protection
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Supplemental Hazard information (EU)
EUH066 Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards: none

SECTION 3. Composition/Information on Ingredients

3.2 Mixtures
Synonyms: Gram's Decolourizer

Name	EC-no	CAS-no	Concentration	Classification in accordance with CLP 1272/2008
Acetone	200-662-2	67-64-1	75%	Flam. Liq (2); H225; Eye Irrit 2; H319, STOT SE3 ; H336
Iso propyl alcohol (IPA)	200-661-7	67-63-0	25%	Flam. Liq (2); H225; Eye Irrit 2; H319, STOT SE3 ; H336

Refer to section 16 for full text of the H-statements mentioned in this section.

SECTION 4. First Aid Measures

4.1 Description of first aid measures
If exposed keep patient calm and seek immediate medical attention. Show this safety data sheet to doctor/physician in attendance.

If inhaled
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If not breathing, give artificial respiration. Get medical advice/attention.

In case of skin contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

In case of eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice/attention.

If swallowed
IF SWALLOWED: Do NOT induce vomiting. Rinse out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed
No data available.

4.3 Indication of immediate medical attention and special treatment needed
No data available.

SECTION 5. Fire-Fighting Measures

5.1 Suitable extinguishing media
Use alcohol-resistant foam or fine water spray, dry chemical powder or carbon dioxide
For large fires immediately alert fire emergency services. Evacuate personnel to safe area.

5.2 Special hazards arising from the substance or mixture
May emit toxic fumes under fire: Carbon oxides, Nitrogen oxide.

5.3 Precautions for fire-fighters
Wear self-contained breathing apparatus. Cool surrounding with water spray. Heating causes a rise in pressure, risk of bursting /explosion. Vapour is slightly heavier than air. Beware of backfire. Stay on upwind side. Use only explosion proved equipment.
In case of violent hazardous effect: Wear appropriate tightly sealed suit.

5.4 Further information
Class of fire: B Liquid or melting substances.

SECTION 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Observe all warning labels on container. Avoid contact with skin and eyes. Avoid breathing dust/fumes/gas/mist/vapours/spray; ensure adequate ventilation. Wear suitable protective clothing, gloves and eye/face protection.
Shut off all naked flames and other sources of ignition. Vapour is slightly heavier than air. Beware of vapours accumulating to form explosive concentrations. Prevent build-up of electrostatic charge. Use explosion-proof electrical/ventilating/lighting equipment.
Do not eat, drink, smoke when handling this product. Wash hands thoroughly after handling.
Evacuate personnel to safe area.

6.2 Environmental precautions
Do not let product enter drains or water course. Inform responsible authorities as appropriate. Prevent further leakage or spillage where safe to do so.

6.3 Methods and materials for containment and cleaning up
Absorb spillage with appropriate absorbent material e.g. vermiculite or sand; and dispose into suitably labelled closed containers for disposal according to local regulations. Use non-sparking tools. If using a vacuum cleaner ensure unit is spark-proof /electrically protected. Avoid ignition of vapour. Wash spillage site with water and appropriate detergent.

6.4 Reference to other sections
For disposal refer to section 13.

SECTION 7. Handling and Storage

7.1 Precautions for safe handling

Take precaution to avoid exposure and observe all warning labels on container. Avoid contact with eyes and skin. Avoid spillage and breathing vapours, mist or gas. Ensure adequate ventilation of the working area. Wear respiratory protection and appropriate personal protective equipment provided. Shut off all naked flames and other sources of ignition. Use only non-sparking tools. Use leak-proof equipment with exhaust for refilling or transfer. Avoid splashing. Use solvent resistant utensils. Take precautionary measure against electrostatic discharge. Use explosion-proof electrical/ventilating/lighting equipment. Beware of vapours (slightly heavier than air) accumulating in low areas to form explosive concentrations.
Avoid prolonged or repeated exposure. Do not eat, drink, smoke when handling this product. Wash hands thoroughly after use.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated place. Replace container lid after use and keep container tightly closed to prevent leakage.

7.3 Specific end uses

Recommend restriction to professional users only.

SECTION 8. Exposure Controls//Personal Protection

8.1 Control parameters

Components with workplace control parameters

TWA Time Weighted Average Concentration (Long Term Exposure Limit)
STEL Short Term Exposure Limit
LTEL Long Term Exposure Limit

Workplace Exposure Levels: WEL EH40/2005 Acetone CAS No. 67-64-1

TWA	STEL UK 15-min:	1500ppm	3620 mg/m^3
TWA	LTEL UK 8-hour:	500ppm	1210 mg/m^3

8.2 Exposure controls

Appropriate engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

Personal protective equipment

Eye/face protection

Avoid exposure to sprays/mist/aerosols. Use face shield and/or safety goggles for eye protection complying with appropriate government standards such as EN166 (EU).

Skin Protection

Handle with chemical-resistant, impervious gloves or gauntlets complying with appropriate government standards: EU Directive 89/686/EEC; standard EN 374. Inspect gloves prior to use to ensure adequate protection. Use proper glove removal technique to avoid skin contact with substance/mixture. Dispose of contaminated gloves after use in accordance with local and national applicable laws and good laboratory practises. Wash and dry hands thoroughly after handling. Promptly remove any contaminated clothing and clean appropriately before reuse.

Body Protection

Use chemically resistant complete suit or protective clothing with closed cuffs and closed neck, appropriate to the concentration /amount of the dangerous substance at the specific workplace.

Respiratory protection
It is recommended that full-face respirator or air hood be used where local exhaust ventilation is inadequate to reduce the atmospheric level to below the national exposure limits for the component substances. Use respirator and components tested and approved to appropriate government standards such as NIOSH (US) or EN 143 / EN 14387 (EU).

8.2.3 Environmental Exposure Controls None.

SECTION 9. Physical and Chemical Properties

The physical/chemical properties of this product have not been fully investigated. Judgements have been made based upon consideration of its major component(s).

9.1 Information on basic physical and chemical properties

a) Appearance Form:	**Clear, colourless liquid**
b) Odour:	**Strong pungent**
c) Odour Threshold:	No data available
d) pH	No data available
e) Melting point:	No data available
f) Boiling point:	No data available
g) Flashpoint:	No data available
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/lower flammability limits:	No data available
k) Vapour pressure:	No data available
l) Vapour density:	No data available
m) Relative density:	No data available
n) Water solubility:	No data available
o) Partition coefficient (log Kow):	No data available
p) Autoignition temperature:	No data available
q) Decomposition temperature:	No data available
r) Viscosity:	No data available
s) Explosive properties:	No data available
t) Oxidizing properties:	No data available

9.2 Other information

Particle Size No data available

SECTION 10. Stability and Reactivity

10.1	**Reactivity**	No data available
10.2	**Chemical stability**	Stable under specified conditions of use and storage
10.3	**Possibility of hazardous reactions**	No data available
10.4	**Conditions to avoid**	Heat, naked flames, other sources of ignition.
10.5	**Incompatible materials**	Strong Oxidising agents, Heat & sources of ignition.
10.6	**Hazardous decomposition products**	Products of Carbon Oxides may be produced on burning or heating. The nature of released decomposition products has not been determined.

SECTION 11. Toxicological Information

11.1 Information on toxicological effects

The toxicological properties of this product has not been fully investigated. Judgements have been made based upon consideration of its major component(s).

Toxicokinetics

(a) Acute toxicity	No data available
(b) Skin corrosion/irritation	No data available
(c) Serious eye damage/ eye irritation	
Acetone	**Draize test – Rabbit – Moderate reaction (20mg/24H)**
IPA	**Draize test – Rabbit – Moderate reaction (100mg/24H)**
(d) Respiratory or skin sensitization	No data available
(e) Germ cell mutagenicity	No data available
f) Carcinogenicity	No data available
Tumourigenic	
IARC:	**Iso Propyl Alcohol (CAS 67-63-0) - Group 3: Not classifiable as to its carcinogenicity to humans.**
(g) Reproductive toxicity	No data available
(h) STOT Specific target organ toxicity	
- single exposure	**May cause damage to the following organs: upper respiratory tract, skin, eyes, central nervous system (CNS).**
(i) STOT Specific target organ toxicity	
- repeated exposure	No data available
(j) Aspiration hazard	No data available

Potential health effects

Inhalation	Maybe harmful if inhaled. Contains components which may cause irritation to mucous membranes and upper respiratory tract. May cause drowsiness and dizziness.
Ingestion	Maybe harmful if ingested. Contains components which may cause vomiting or other adverse effects such as diarrhoea.
Skin	Repeated exposure may cause skin dryness or cracking.
Eyes	Causes serious eye irritation.

Signs and Symptoms of Exposure

Short term exposure may result in drowsiness, headache, confusion, sickness, abdominal pain, possibly within 30 minutes of exposure.

Additional Information

None

SECTION 12. Ecological Information

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

12.1	**Aquatic Toxicity**	No data available. Adverse ecological effects cannot be excluded in the event of improper handling or disposal.
	Acetone	**LC50 – fish (*Oncorhynchus mykiss*) = 5,540.00 mg/l at 96h**
	IPA	**LC50 – fish (*Leuciscus idus melanotus*) = 8970-9280 mg/L 48h**
12.2	**Persistence and degradability**	No data available.

12.3	**Bioaccumulative potential**	No data available. Do not let undiluted product or large quantities enter drains or water course. Inform responsible authorities as appropriate.
12.4	**Mobility in soil**	No data available
12.5	**Results of PBT and vPvB assessment**	No data available
12.6	**Other adverse effects**	None

SECTION 13. Disposal Considerations

13.1 Waste treatment methods

Product Dispose of as hazardous waste via a licensed waste material processor. Comply with local regulations.

Contaminated Packaging Dispose of as unused product.

SECTION 14. Transport Information

		ADR/RID	IMDG	IATA
14.1	**UN-Number**	1993	1993	1993
14.2	**UN proper shipping name**	**Flammable Liquid, n.o.s (acetone,propan-2-ol)**		
14.3	**Transport hazard class**	3	3	3
14.4	**Packaging group**	II	II	II
14.5	**Environmental hazards**	No	Marine pollutant: No	No
14.6	**Special precautions for users**	No data available		
14.7	**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**	No data available		

SECTION 15. Regulatory information

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 and (EU) 453/2010

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
All components are listed as existing substances in Europe

15.2 Chemical Safety Assessment
A Chemical Safety Assessment has not been carried out for this product.

SECTION 16. Other information

Additional information from Section 3:

H Statements:

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

Further information
The information herein is provided in good faith and is correct to the best of our knowledge but makes no representation as to its completeness or accuracy. This safety data sheet is intended for use only as a guide for the appropriate precautionary handling of material by suitably trained persons.
TCS Biosciences Ltd shall not be held liable for any loss, injury or damage which may result from its use.

Issue 1: created 05.12.12
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v4,0 created 29.01.2016, small change to classification affecting section 2; update to P210 statement; removal of classification and labelling according to Directive 1999/45//EEC & 67/548/EEC.

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HS310 end