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, in CLP Regulation (EC) No 1272/2008 and in Annex I of the Commission Regulation (EU) No 2015/830.

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

1.1 Product Identifier

Product Name: **Picric Acid (Sat. Aqueous)**
Product Number: **HS655**
Brand: **TCS Biosciences**

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

+44 (0)1296 714222 only available during the following office hours:
Monday – Thursday 8:30 – 17:00 GMT/BST
Friday 9:00 – 15:00 GMT/BST

SECTION 2. Hazards Identification

2.1 Classification of the substance or mixture

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

Skin corrosion (Category 1B)
Eye Damage (Category 1)

2.2 Label Elements

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

Pictogram:

Signal word: **Danger**

Hazard Statements
H314 Causes severe skin burns and eye damage.

Precautionary Statement(s)

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.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P405	Store locked up.

2.3 Other hazards: Dyes and Stains by their physical nature may result in permanent staining if in contact with skin and clothing.
No substance contained in this product meets the criteria for vPvB and PBT according to Regulation (EC) No 1907/2006, Annex XIII; and, no substance within this product is identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100.

SECTION 3. Composition/Information on Ingredients

3.2 Mixtures
Synonyms: None
Form: Liquid

Component	EC-No	CAS-No	Concentration	Classification in accordance with Regulation (EC) No 1272/2008
Picric Acid	201-865-9	88-89-1	<2%	Expl. 1.1, H201; Acute Tox3, H331 H311 H301.

For full text of the H-Statements mentioned in this section please refer to Section 16

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
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
Note: Dyes and Stains by their physical nature may result in permanent staining in contact with skin
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
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.

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

5.2 Special hazards arising from the substance or mixture
Explosive when dry, Forms very sensitive explosive metallic compounds.

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 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
Do not let undiluted product or large quantities enter drains or water course. Avoid discharge to the environment. 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 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
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. 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 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

Component	CAS-No	Value	Control Parameters	Basis
Picric acid	88-89-1	TWA LTEL – 8h STEL – 15mins	0.1 mg/m^3 0.3 mg/m^3	UK.EH40 WEL- Workplace Exposure limit

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 & Body Protection

Handle with chemical-resistant, impervious gloves or 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.
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

Inhalation of oil mist or vapours may cause respiratory irritation. It is recommended that full-face respirator or air hood be used where local exhaust ventilation is inadequate; use respirator and components tested and approved to appropriate government standards such as NIOSH (US) or EN 143 / EN 14387 (EU).

Thermal hazards

No specific thermal hazard. Forms explosive mixtures with air on intense heating. Product is stored at room temperature.

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) Physical state:	Liquid.
b) Colour:	Yellow
c) Odour:	No data available
d) Melting/freezing point	No data available
e) Initial boiling point /boiling range:	No data available
f) Flammability:	No data available
g) Upper/lower explosion limits:	No data available
h) Flash point:	No data available
i) Auto-ignition temperature:	No data available
j) Decomposition temperature:	No data available
k) pH:	1.4
l) Kinematic viscosity:	No data available
m) Solubility at 20°C: Water	Miscible
Fat	No data available
n) Partition coefficient n-octanol/water (log value):	Not applicable
o) Vapour pressure:	No data available
p) Density and/or relative density:	No data available
q) Relative vapour density:	No data available
r) Particle characteristics:	Not applicable

9.2 Other information

9.2.1. Information with regard to physical hazard classes No data available.

9.2.2. Other safety characteristics Not applicable.

SECTION 10. Stability and Reactivity

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

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**	Avoid shock and friction. Heating (explosive decomposition)
10.5	**Incompatible materials**	Strong bases, Reducing agents, Heavy metals, Heavy metal salts.
10.6	**Hazardous decomposition products**	Products of Carbon Oxides and Nitrogen Oxides may be 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 – Mixture

(a) Acute toxicity	Based on available data; the classification criteria are not met. Picric acid CAS-No 88-89-1 Acute toxicity (inhal) - ATE = 700 Acute toxicity (oral) - ATE = 100 Acute toxicity (dermal) - ATE = 300
(b) Skin corrosion/irritation	Based on available data; the classification criteria are met.
(c) Serious eye damage/ eye irritation	Based on available data; the classification criteria are met.
(d) Respiratory or skin sensitization	Based on available data; the classification criteria are not met.
(e) Germ cell mutagenicity	Based on available data; the classification criteria are not met.
(f) Carcinogenicity	Based on available data, the classification criteria are not met.
Tumourigenic **RTECS criteria**:	Based on available data, the classification criteria are not met.
IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC or EC.
(g) Reproductive toxicity	Based on available data; the classification criteria are not met.
(h) STOT Specific target organ toxicity - single exposure	Based on available data; the classification criteria are not met.
(i) STOT Specific target organ toxicity - repeated exposure	Based on available data; the classification criteria are not met.
(j) Aspiration hazard	Based on available data; the classification criteria are not met.

Potential health effects

Inhalation	Maybe toxic if inhaled.
Ingestion	Maybe harmful if swallowed. Causes burns.
Skin	Causes severe skin burns and eye damage.
Eyes	Causes eye burns.

Signs and Symptoms of Exposure Picric Acid dust causes sensitisation dermatitis. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties: No component of this mixture is classified as endocrine disrupting according to Regulation (EU) No 2017/2100.

11.2.2 Other information: No data available.

SECTION 12. Ecological Information

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

12.1 Toxicity Not classified as acutely or chronically toxic to aquatic organisms.

Toxicity to fish
Toxicity to daphnia and other aquatic invertebrates No data available.

12.2 Persistence and degradability No data available

12.3 Bioaccumulative potential Adverse ecological effects cannot be excluded in the event of improper handling or disposal.
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 This mixture does not contain any substances that are assessed to be a PBT or a vPvBs No data available

12.6 Other adverse effects No data available

SECTION 13. Disposal Considerations

13.1 Waste treatment methods

13.1.1 Product Dispose of as hazardous waste and offer non-recyclable solutions to 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**	na	na	na
14.2	**UN proper shipping name**	na	na	na
14.3	**Transport hazard class(es)**	na	na	na
14.4	**Packaging group**	na	na	na
14.5	**Environmental hazards**	No	Marine pollutant: No	No
14.6	**Special precautions for users**	No data available		
14.7	**Maritime transport in bulk according to IMO instruments**	No data available		

SECTION 15. Regulatory information

This Safety Data Sheet complies with the requirements of Regulations (EC) No. 1907/2006 and its amendments (EU) No. 453/2010 & (EU) No. 2015/830; and (EC) No. 1272/2008.

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 Statement(s)
H201 Explosive; mass explosion hazard
H331 Toxic if inhaled.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.

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 19.06.2013
V2: created 31.08.2014 updated to CLP Classification
V3.0 created 03.03.2016, change to classification; removal of classification and labelling according to Directive 1999/45//EEC & 67/548/EEC.
V4.0 created 01.04.2017 addition of StainHD logo
Version 5 created 25.08.2022, change to classification, format updated to comply with Annex II of REACH.

HS655 end