MATERIAL SAFETY DATA SHEET

Cellulose Clear Gloss Binder

PERFECTION, REFINISHED.

SECTION 1: IDENTIFICATION OF PRODUCT AND COMPANY

1.1 Product Identifier

Product name: Cellulose Clear Gloss Binder
Product Code: FL2030-1

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

Recommended use: Paint for metal
Uses advised against: Not suitable for use in homeworker (DIY) applications.

1.3 Details of supplier of the safety data sheet

Details of company: FLP Group
Unit 1 Clayfields Industrial Estate
Tickhill Road
Doncaster
DN4 8QG
+44 (0) 1302 571571
sales@flpgroup.co.uk

1.4 Emergency telephone number

Emergency Tel: +44 (0) 1302 571571

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification under CLP: Flam. Liq. 2: H225; Skin Irrit. 2: H315; Eye Irrit. 2: H319; Repr. 2: H361; STOT SE 3: H336; STOT RE 2: H373.

Most important adverse effects: Flammable. Harmful by inhalation and in contact with skin. Irritating to skin. Repeated exposure may cause skin dryness or cracking.

2.2 Label elements

Hazard statements:
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H361d Suspected of damaging the unborn child.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.

Signal words: Warning

Hazard pictograms:
GHS02: Flame
GHS07: Exclamation mark
GHS08: Health hazard

Precautionary statements:
P201 Obtain special instructions before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe fume/gas/mist/vapours/spray.
P280 Wear protective gloves/clothing and eye/face protection.

P312 Call a POISON CENTER/ doctor if you feel unwell.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
Special Provisions: None
Contains: Toluene
Ethyl acetate

2.3 Other hazards
Other hazards: No other hazards know.
PBT: This substance is not identified as a PBT substance.

SECTION 3: COMPOSITON/INFORMATION ON INGREDIENTS

3.2 Mixtures
Hazardous ingredients:

EINECS	CAS	CLP Classification	Percent
Toluene REACH No.: 01-2119471310-51			
203-625-9	108-88-3	Flam. Liq. 2 H225. Repr. 2 H361. Asp. Tox. 1 H304. STOT RE 2 H373. Skin Irrit. 2 H315. STOT SE 3 H336	≥15% - <20%
2-methoxy-1-methylethyl acetate REACH No.: 01-2119475791-29			
203-603-9	108-65-6	Flam. Liq. 3 H226	≥10% - <12.5%
ethyl acetate REACH No.: 01-2119475103-46			
205-500-4	141-78-6	Flam. Liq. 2 H225. Eye Irrit. 2 H319. STOT SE 3 H336. EUH066	≥7% - <10%
Aromatic hydrocarbons, C8 REACH No.: 01-2119486136-34			
292-694-9	90989-38-1	Flam. Liq. 3 H226. Dermal Acute Tox. 4 H312. Inhal Acute Tox. 4 H332. Asp. Tox. 1 H304. Skin Irrit. 2 H315. Eye Irrit. 2 H319. STOT SE 3 H335. STOT RE 2 H373 DECLJ (CLP)*	≥7% - <10%
n-butyl acetate REACH No.: 01-2119485493-29			
204-658-1	123-86-4	Flam. Liq. 3 H226. STOT SE 3 H336. EUH066	≥7% - <10%
isobutyl acetate REACH No.: 01-2119488971-22			
203-745-1		Flam. Liq. 2 H225. STOT SE 3 H336. EUH066	<7%
2-butoxyethanol REACH No.: 01-2119475108-36			
203-905-0	111-76-2	Eye Irrit. 2 H319. Skin Irrit. 2 H315. Oral Acute Tox. 4 H302. Dermal Acute Tox. 4 H312. Inhal Acute Tox. 4 H332	≥3% - <5%
propan-2-ol REACH No.: 01-2119457558-25			
200-661-7	67-63-0	Flam. Liq. 2 H225. Eye Irrit. 2 H319. STOT SE 3 H336	≥3% - <5%
1-isopropyl-2,2-dimethyltrimethylene disobutyrate REACH No.: 01-2119451093-47			
229-934-9	6846-50-0	Aquatic Chronic 3 H412	≥1% - <3%

2-methylpropan-1-ol REACH No.: 01-2119484609-23			
201-148-0	78-83-1	Flam. Liq. 3 H226. STOT SE 3 H335. Skin Irrit. 2 H315. Eye Dam. 1 H318. STOT SE 3 H336	≥1% - <3%
Methanol REACH No.: 01-2119433307-44			
200-659-6	67-56-1	Flam. Liq. 2 H225. STOT SE 1 H370. Oral Acute Tox. 3 H301. Dermal Acute Tox. 3 H311. 3.1/3/Inhal Acute Tox. 3 H331	< 0.1%

*DECLJ (CLP): Substance classified in accordance with Note J, Annex VI of EC Regulation (EC) 1272/2008. The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1 % w/w benzene (EINECS No 200-753-7). This note applies only to certain complex coal- and oil-derived substances in Part 3.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

In case of skin contact: Remove contaminated clothing immediately and dispose of safely. After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Protect uninjured eye.

In case of Ingestion: Do NOT induce vomiting.

In case of Inhalation: Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of inhalation, consult a doctor immediately and show him packing or label.

4.2 Most Important symptoms and effects, both acute and delayed

None known

4.3 Indication of any immediate medical attention and special treatment needed

In case of accident or un-wellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: CO2, powder extinguisher, foam, water spray.
Extinguishing media which must not be used for safety reasons: Water jet.

5.2 Special hazards arising from the substance or mixture

Burning produces heavy smoke.
Do not inhale explosion and/or combustion gases (carbon monoxide, carbon dioxide, oxides of nitrogen).

5.3 Advice for fire-fighters

Use suitable breathing apparatus. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: ACCIDENTAL REALESE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions:	Remove all sources of ignition. Wear personal protection equipment. Wear breathing apparatus if exposed to vapours/dusts/aerosols. See protective measures under point 7 and 8.

6.2 Environmental precautions

Environmental precautions:	Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Retain contaminated washing water and dispose it. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3 Methods and material for containment and cleaning up

Clean-up procedures:	Suitable material for collection: inert absorbent material (e.g. sand, vermiculite). After the product has been recovered, rinse the area and materials involved.

6.4 Reference to other sections

Reference to other sections:	Refer to section 8 & 13 of SDS

SECTION 7: HANDLING & STORAGE

7.1 Precautions for safe handling

Handling requirements:	Avoid contact with skin and eyes; inhalation of vapours and mists. Use localized ventilation system. Don't use empty container before they have been cleaned. Before making transfer operations, assure that there aren't any incompatible material residuals in the containers. Electrical equipment must be protected in compliance with appropriate norms. Do not allow to dry. Avoid shock and friction. Contained clothing should be changed before entering eating areas. Do not eat or drink while working. See also section 8 for recommended protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions:	Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight. Keep away from food, drink and feed. See chapter 10.5
Suitable packaging:	Keep container tightly closed in a cool, well-ventilated place, away from heat.

7.3 Specific end use(s)

Specific end use(s):	See section 1.2

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Toluene - CAS: 108-88-3

WEL - Country: UNITED KINGDOM - LTE: 191 mg/m3, 50 ppm - STE: 384 mg/m3, 100 ppm

EU – LTE (8h): 192 mg/m3, 50 ppm - STE: 384 mg/m3, 100 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2.3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

ACGIH – LTE (8h): 20 ppm - Notes: A4, BEI - Visual impair, female repro, pregnancy loss

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

EU – LTE (8h): 275 mg/m3, 50 ppm - STE: 550 mg/m3, 100 ppm - Notes: Indicative Occupational Exposure Limit Values [2.3] and Limit Values for Occupational Exposure [4] (for references see bibliography)
WEL - Country: UNITED KINGDOM - LTE: 274 mg/m3, 50 ppm - STE: 548 mg/m3, 100 ppm

Ethyl acetate - CAS: 141-78-6
ACGIH – LTE (8h): 400 ppm - Notes: URT and eye irr
WEL - Country: UNITED KINGDOM - LTE: 730 mg/m3, 200 ppm - STE: 1460 mg/m3, 400 ppm

Aromatic hydrocarbons, C8 - CAS: 90989-38-1
ACGIH - LTE: 434 mg/m3, 100 ppm - STE: 651 mg/m3, 150 ppm

N-butyl acetate - CAS: 123-86-4
ACGIH – LTE (8h): 150 ppm - STE: 200 ppm - Notes: Eye and URT irr
WEL - Country: UNITED KINGDOM - LTE: 724 mg/m3, 150 ppm - STE: 966 mg/m3, 200 ppm

Isobutyl acetate - CAS: 110-19-0
ACGIH – LTE (8h): 150 ppm - Notes: Eye and URT irr
WEL - Country: UNITED KINGDOM - LTE: 724 mg/m3, 150 ppm - STE: 903 mg/m3, 187 ppm

2-butoxyethanol - CAS: 111-76-2
WEL - Country: UNITED KINGDOM - LTE: 123 mg/m3, 25 ppm - STE: 246 mg/m3, 50 ppm
EU – LTE (8h): 98 mg/m3, 20 ppm - STE: 246 mg/m3, 50 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2.3] and Limit Values for Occupational Exposure [4] (for references see bibliography)
ACGIH – LTE (8h): 20 ppm - Notes: A3, BEI - Eye and URT irr

Propan-2-ol - CAS: 67-63-0
ACGIH – LTE (8h): 200 ppm - STE: 400 ppm - Notes: A4, BEI - Eye and URT irr, CNS impair
WEL - Country: UNITED KINGDOM - LTE: 999 mg/m3, 400 ppm - STE: 1250 mg/m3, 500 ppm

2-methylpropan-1-ol - CAS: 78-83-1
ACGIH – LTE (8h): 50 ppm - Notes: Skin and eye irr

Methanol - CAS: 67-56-1
WEL - Country: UNITED KINGDOM - LTE: 266 mg/m3, 200 ppm - STE: 333 mg/m3, 250 ppm
EU – LTE (8h): 260 mg/m3, 200 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2.3] and Limit Values for Occupational Exposure [4] (for references see bibliography)
ACGIH – LTE (8h): 200 ppm - STE: 250 ppm - Notes: Skin BEI - Headache, eye dam, dizziness, nausea

DNEL Exposure Limit Values

Aromatic hydrocarbons, C8 - CAS: 90989-38-1
Worker Professional: 0.077 mg/l - Consumer: 0.0148 mg/l - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Professional: 180 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 1.6 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

Aromatic hydrocarbons, C8 - CAS: 90989-38-1
Target: Marine water - Value: 0.327 mg/l
Target: Fresh Water - Value: 0.327 mg/l
Target: Marine water sediments - Value: 12.46 mg/kg
Target: Fresh Water - Value: 12.46 mg/kg
Target: Soil (agricultural) - Value: 2.31 mg/kg

8.2 Exposure controls

Eye protection:	Use close fitting safety goggles, don't use eye lens.
Skin protection:	Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or Viton.
Hands protection:	Use protective gloves that provides comprehensive protection, e.g. NBR (nitrile rubber), FKM (fluoro rubber). The selection of suitable gloves does not only depend on the material, but also on other

	quality characteristics and varies from manufacturer to another one, and on the manner and times of use of the mixture.
Respiratory protection:	Combination filtering device (DIN EN 141).
Environmental exposure controls:	See chapter 6.2

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance and colour:	coloured thick liquid
Odour:	of solvent
Odour threshold:	not available
pH:	not available
Melting point / freezing point:	not available
Initial boiling point and boiling range:	not available
Solid/gas flammability:	not applicable
Flammability or explosive limits:	
Upper:	not available
Lower:	not available
Vapour density:	not available
Flash point:	<23 °C
Evaporation rate:	not available
Vapour pressure:	not available
Relative density:	0.98 ÷ 1.04
Solubility in water:	not soluble
Solubility in oil:	not available
Partition coefficient (n-octanol/water):	not available
Auto-ignition temperature:	not available
Decomposition temperature:	not available
Viscosity:	60 ÷ 90 sec. ISO-DIN cup 6 mm (20 °C)
Explosive properties:	none
Oxidizing properties:	none

9.2 Other information

Miscibility:	not available
Conductivity:	not available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity: It may generate dangerous reactions (See subsections below)

10.2 Chemical stability

Chemical stability: Stable under normal conditions.

10.3 Possibilities of hazardous reactions

Hazardous reactions: It may catch fire on contact with oxidising mineral acids, and nitrides. Because of heat or fire the preparation can release carbon oxides and vapours which may be harmful to health. Aluminium, copper or brass, acids or acidic resins, amines/amino alcohols or amino-resins, oxidizing agents may cause exothermic reaction (generating heat and fumes) and/or self-ignition by catalytic decomposition with cellulose nitrate.

10.4 Conditions to avoid

Conditions to avoid: Avoid heat sources.

10.5 Incompatible materials

Materials to avoid: Avoid contact with oxidizing materials or powerful oxidising agents. The product could catch fire

10.6 Hazardous decomposition products

Hazardous decomposition products: No hazardous decomposition products when stored and handled correctly. See chapter 5.2

SECTION 11: TOXICAL INFORMATION

11.1 Information on toxicological effects

Possible risk of harm to the unborn child
Toxic for reproduction category 3
Toxicological information of the main substances found in the mixture:
Toluene - CAS: 108-88-3
a) Acute toxicity:
Test: LD50 - Route: Oral - Species: Rat 5542 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit 14000 mg/kg
2-methoxy-1-methylethyl acetate - CAS: 108-65-6
a) Acute toxicity:
Test: LD50 - Route: Oral - Species: Rat 8530 mg/kg
Test: LD50 - Route: Skin - Species: Rat > 5000 mg/kg
Ethyl acetate - CAS: 141-78-6
a) Acute toxicity:
Test: LD50 - Route: Oral - Species: Rabbit 5620 mg/kg
Aromatic hydrocarbons, C8 - CAS: 90989-38-1
a) Acute toxicity:
Test: LC50 - Route: Inhalation Vapour - Species: Rat 27124 mg/m3 - Duration: 4h
Test: LD50 - Route: Oral - Species: Rat 3223 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit 12126 mg/kg
N-butyl acetate - CAS: 123-86-4
a) Acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 10000 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 14000 mg/kg
Test: LC50 - Route: Inhalation Vapour - Species: Rat 21.1 mg/l - Duration: 4h
2-butoxyethanol - CAS: 111-76-2
a) Acute toxicity:
Test: LD50 - Route: Oral - Species: Rat 470 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit 220 mg/kg
Test: LC50 - Route: Inhalation Vapour - Species: Rat 2.17 mg/l - Duration: 4h
Propan-2-ol - CAS: 67-63-0
a) Acute toxicity:
Test: LD50 - Route: Oral - Species: Rat 5050 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit 12800 mg/kg
2-methylpropan-1-ol - CAS: 78-83-1
a) Acute toxicity:
Test: LD50 - Route: Oral - Species: Rat 2460 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit 2460 mg/kg
Test: LC50 - Route: Inhalation Vapour - Species: Rat 19.2 mg/l - Duration: 4h
Methanol - CAS: 67-56-1
a) Acute toxicity:
Test: LD50 - Route: Oral - Species: Rat 5630 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit 15800 mg/kg
Test: LC50 - Route: Inhalation Vapour - Species: Rat 83.9 mg/l - Duration: 4h

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:

a) Acute toxicity;
b) Skin corrosion/irritation;
c) Serious eye damage/irritation;
d) Respiratory or skin sensitisation;
e) Germ cell mutagenicity;
f) Carcinogenicity;
g) Reproductive toxicity;
h) STOT-single exposure;
i) STOT-repeated exposure;
j) Aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Eco toxicological studies of the product are not available. Aromatic hydrocarbons, C8 - CAS: 90989-38-1

a) Aquatic acute toxicity: Endpoint: IC50 - Species: Algae 2.2 mg/l - Duration h: 72
Endpoint: EC50 - Species: Daphnia 1.0 mg/l - Duration h: 24
Endpoint: LC50 - Species: Fish 2.6 mg/l - Duration h: 96

12.2 Persistence and degradability

Not applicable

12.3 Bio accumulative potential

Not applicable

12.4 Mobility in soil

Not applicable

12.5 Results of PBT and vPvB assessment

PBT identification: This substance is not identified as a PBT substance

12.6 Other adverse effects

None

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: TRANSPORTATION INFORMATION

14.1 UN number

UN number: UN1263

14.2 UN proper shipping name

Shipping name: PAINT or PAINT RELATED MATERIAL

14.3 Transport hazard class

Transport class: 3

14.4 Packaging group

Packing group:	II

14.5 Environmental hazards

Environmentally hazardous:	No
Marine pollutant:	No

14.6 Special precautions for user

ADR-Subsidiary risks:	-
ADR-S.P.:	163 640C 650
ADR-Tunnel Restriction Code:	(D/E)
IATA-Passenger Aircraft:	353
IATA-Subsidiary risks:	-
IATA-Cargo Aircraft:	364
IATA-S.P.:	A3 A72
IATA-ERG:	3L
IMDG-EmS:	F-E, S-E
IMDG-Subsidiary risks:	-
IMDG-Storage category:	Category B
IMDG-Storage notes:	-

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 453/2010 (Annex II)
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Volatile Organic compounds - VOCs = 70.97 %

Volatile CMR substances = 0.03 %
Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %

Where applicable, refer to the following Italian regulatory provisions:
Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.
1999/13/EC (VOC directive)

15.2 Chemical safety assessment
No

SECTION 16: OTHER INFORMATION

Other information:	This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in section 3:

H225 Highly flammable liquid and vapour.
H361 Suspected of damaging fertility or the unborn child.
H304 May be fatal if swallowed and enters airways.
H373 May cause damage to organs through prolonged or repeated exposure.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.
EUH066 Repeated exposure may cause skin dryness or cracking.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H302 Harmful if swallowed.
H412 Harmful to aquatic life with long lasting effects.
H318 Causes serious eye damage.
H370 Causes damage to organs.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H331 Toxic if inhaled.