SAFETY DATA SHEET
G/flex 655 Resin

According to Regulation (EU) No 453/2010

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name	G/flex 655 Resin
Product No.	655A

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

Identified uses	Resin.

1.3. Details of the supplier of the safety data sheet

Supplier	Wessex Resins & Adhesives Cupernham House Cupernham Lane Romsey Hampshire S051 7LF Tel+44(0)1794 521111 Fax+44(0)1794 521271 info@wessex-resins.com

1.4. Emergency telephone number

+44(0)207 858 1228

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Xi;R36/38. R43. N;R51/53.

Human health

See section 11 for additional information on health hazards.

Environment

The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See section 12 as well.

2.2. Label elements

Contains EPOXY RESIN (Number average MW <= 700)
BISPHENOL F EPOXY RESIN

Labelling

Irritant

Dangerous for the environment

Risk Phrases

R36/38	Irritating to eyes and skin.
R43	May cause sensitisation by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases

S2	Keep out of the reach of children.
S24/25	Avoid contact with skin and eyes.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S46	If swallowed, seek medical advice immediately and show this container or label.
S60	This material and its container must be disposed of as hazardous waste.
P5	Contains epoxy constituents. See information supplied by the manufacturer.

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

EPOXY RESIN (Number average MW <= 700)		60-100%
CAS-No.: 25068-38-6	EC No.: 500-033-5	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Skin Irrit. 2 - H315	R43
Eye Irrit. 2 - H319	Xi;R36/38
Skin Sens. 1 - H317	N;R51/53
Aquatic Chronic 2 - H411	

BISPHENOL F EPOXY RESIN		10-30%
CAS-No.: 28064-14-4	EC No.:	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Skin Irrit. 2 - H315	Xi;R36/38.
Eye Irrit. 2 - H319	N;R51/53.
Skin Sens. 1 - H317	R43.
Aquatic Chronic 2 - H411	

PYROGENIC MICRO-DISPERSED SILICA		1-5%
CAS-No.: 7631-86-9	EC No.: 231-545-4	
Substance with National workplace exposure limits.		

Classification (EC 1272/2008)	Classification (67/548/EEC)
Not classified.	Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion

Do not induce vomiting. Immediately rinse mouth and drink plenty of water (200-300 ml). Get medical attention.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.

Eye contact

Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation

May cause irritation to the respiratory system.

Ingestion

May cause discomfort if swallowed.

Skin contact

Prolonged skin contact may cause redness and irritation.

Eye contact

Irritating and may cause redness and pain.

4.3. Indication of any immediate medical attention and special treatment needed

No specific first aid measures noted. The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

This product is not flammable. Carbon dioxide (CO2). Dry chemicals, sand, dolomite etc. Foam.

Unsuitable extinguishing media

DO NOT use water if avoidable.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire, toxic gases may be formed. Fire creates: Carbon monoxide (CO). Carbon dioxide (CO2).

Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

Specific hazards

When heated and in case of fire, irritating vapours/gases may be formed.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

In case of spills, beware of slippery floors and surfaces. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Avoid release to the environment. Do not discharge into drains, water courses or onto the ground. Contain spillages with sand, earth or any suitable adsorbent material.

6.3. Methods and material for containment and cleaning up

Wear necessary protective equipment. Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush area clean with lots of water. Be aware of potential for surfaces to become slippery. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Runoff or release to sewer, waterway or ground is forbidden.

6.4. Reference to other sections

See section 11 for additional information on health hazards. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Use personal protective equipment as required. Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Do not eat, drink or smoke when using the product. Avoid inhalation of vapours.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame. Keep separate from food, feedstuffs, fertilisers and other sensitive material. Protect from light, including direct sunrays. Store separated from: Acids. Alkalis. Oxidising material.

Storage Class

Chemical storage.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
PYROGENIC MICRO-DISPERSED SILICA	WEL		2.4 mg/m3 resp.dust			

WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment


Process conditions

Provide eyewash station.

Engineering measures

Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of vapours.

Respiratory equipment

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

Hand protection

Use protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection

Wear splash-proof eye goggles to prevent any possibility of eye contact. Use face shield in case of splash risk.

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. When using do not eat, drink or smoke.

Environmental Exposure Controls

Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Yellow white
Odour	Mild.
Solubility	Slightly soluble in water.
Initial boiling point and boiling range (°C)	> 200 760 mm Hg

Melting point (°C)

Not determined.

Relative density	1.18 @ 25°C
Vapour density (air=1)	> 1
Vapour pressure	< 1 mm Hg @ 20°C

Evaporation rate

Not determined.

pH-Value, Conc. Solution

Not determined.

Viscosity	336, 000 mPas @ 25°C

Decomposition temperature (°C)

Not determined.

Odour Threshold, Lower

Not determined.

Odour Threshold, Upper

Not determined.

Flash point (°C) > 93 CC (Closed cup).

Auto Ignition Temperature (°C)

Not determined.

Flammability Limit - Lower(%)

Not determined.

Flammability Limit - Upper(%)

Not determined.

Explosive properties

Not determined.

Oxidising properties

Not determined.

9.2. Other information

Not known.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Not known.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials To Avoid

Strong acids. Strong alkalis. Strong oxidising substances.

10.6. Hazardous decomposition products

In case of fire, toxic gases may be formed. Fire creates: Carbon monoxide (CO). Carbon dioxide (CO_2).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:

Acute Toxicity (Oral LD50)

No information available.

Based on available data the classification criteria are not met.

Acute Toxicity (Dermal LD50)

No information available.

Based on available data the classification criteria are not met.

Acute Toxicity (Inhalation LC50)

No information available.

Based on available data the classification criteria are not met.

Skin Corrosion/Irritation:

Irritating to skin. May cause skin irritation/eczema.

Serious eye damage/irritation:

Irritating to eyes.

Respiratory or skin sensitisation:

May cause sensitisation by skin contact.

Germ cell mutagenicity:

Genotoxicity - In Vitro

No information available.

Based on available data the classification criteria are not met.

Genotoxicity - In Vivo

No information available.

Based on available data the classification criteria are not met.

Carcinogenicity:

Carcinogenicity

No information available.

Based on available data the classification criteria are not met.

Reproductive Toxicity:

Reproductive Toxicity - Fertility

No information available.

Based on available data the classification criteria are not met.

Reproductive Toxicity - Development

No information available.

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure:

Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure:

Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard:

Based on available data the classification criteria are not met.

Toxicological information on ingredients.

Acute toxicity:
Acute Toxicity (Oral LD50)
> 2000 mg/kg Rat
REACH dossier information
Based on available data the classification criteria are not met.

Acute Toxicity (Dermal LD50)
> 2000 mg/kg Rat
REACH dossier information
Based on available data the classification criteria are not met.
Acute Toxicity (Inhalation LC50)
Data lacking.

Skin Corrosion/Irritation:
Dose
4 hr Rabbit
Erythema\eschar score
Very slight erythema -barely perceptible (1).
Oedema score
No oedema (0).
Irritating to skin.

Serious eye damage/irritation:
Irritating to eyes.

Respiratory or skin sensitisation:
Respiratory sensitisation
Data lacking.
Skin sensitisation
Local Lymph Node Assay (LLNA) Mouse
REACH dossier information
May cause sensitisation by skin contact.

Germ cell mutagenicity:
Genotoxicity - In Vitro
Gene Mutation:
REACH dossier information
Negative.
Based on available data the classification criteria are not met.
Genotoxicity - In Vivo
Chromosome aberration:
REACH dossier information
Negative.
This substance has no evidence of mutagenic properties.

Carcinogenicity:
Carcinogenicity
NOAEL 100 mg/kg Oral Rat
REACH dossier information
This substance has no evidence of carcinogenic properties.

Reproductive Toxicity:
Reproductive Toxicity - Fertility
Two-generation study: NOAEL 20 mg/kg/day Oral Rat P
REACH dossier information
Based on available data the classification criteria are not met.
Reproductive Toxicity - Development

Maternal toxicity: NOAEL 180 mg/kg/day Oral Rat

REACH dossier information

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure:

Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

NOAEL 50 mg/kg Oral Rat

REACH dossier information

Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard:

Based on available data the classification criteria are not met.

BISPHENOL F EPOXY RESIN (CAS: 28064-14-4)

Toxicological information

No information available.

Acute toxicity:
Acute Toxicity (Oral LD50)
> 5000 mg/kg Rat
REACH dossier information
Based on available data the classification criteria are not met.

Acute Toxicity (Dermal LD50)
> 2000 mg/kg Rabbit
REACH dossier information
Based on available data the classification criteria are not met.

Acute Toxicity (Inhalation LC50)
> 58.8 mg/l (dust/mist) Rat 4 hours
REACH dossier information
Based on available data the classification criteria are not met.

Skin Corrosion/Irritation:
Dose
4 hr Rabbit
Primary dermal irritation index (PDI)
0
Based on available data the classification criteria are not met.

Serious eye damage/irritation:
Based on available data the classification criteria are not met.

Respiratory or skin sensitisation:
Respiratory sensitisation
Data lacking.
Skin sensitisation
Data lacking.

Germ cell mutagenicity:
Genotoxicity - In Vitro
Chromosome aberration:
REACH dossier information
Negative.
Based on available data the classification criteria are not met.
Genotoxicity - In Vivo
Gene Mutation:
REACH dossier information
Negative.
This substance has no evidence of mutagenic properties.

Carcinogenicity:
Carcinogenicity
NOAEL 3000 mg/kg/day Oral Rat
REACH dossier information
This substance has no evidence of carcinogenic properties.

Reproductive Toxicity:
Reproductive Toxicity - Fertility
One-generation study: NOAEL 497 mg/kg/day Oral Rat P
REACH dossier information
Based on available data the classification criteria are not met.
Reproductive Toxicity - Development
Maternal toxicity: NOAEL 1350 mg/kg/day Oral Rat

REACH dossier information

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure:

Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

NOAEL 2000 mg/kg Oral Rat

REACH dossier information

Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard:

Based on available data the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment. There are no data on the ecotoxicity of this product.

Ecological information on ingredients.

EPOXY RESIN (Number average MW <= 700) (CAS: 25068-38-6)

Acute Toxicity - Fish

LC50 96 hours 1.2 mg/l Onchorhynchus mykiss (Rainbow trout)

REACH dossier information

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours 2.8 mg/l Daphnia magna

REACH dossier information

Acute Toxicity - Aquatic Plants

EC50 72 hours 9.4 mg/l Selenastrum capricornutum

REACH dossier information

IC50 3 hours > 100 mg/l Activated sludge

REACH dossier information

BISPHENOL F EPOXY RESIN (CAS: 28064-14-4)

There are no data on the ecotoxicity of this product.

PYROGENIC MICRO-DISPERSED SILICA (CAS: 7631-86-9)

Acute Toxicity - Fish

Not toxic at limit of water solubility.

LC50 96 hours > 10000 mg/l Brachydanio rerio (Zebra Fish)

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity - Aquatic Invertebrates

Not toxic at limit of water solubility.

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity - Aquatic Plants

Not toxic at limit of water solubility.

EC50 72 hours > 10000 mg/l Scenedesmus subspicatus

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity - Microorganisms

Not determined.

12.2. Persistence and degradability

Degradability

There are no data on the degradability of this product.

Ecological information on ingredients.

EPOXY RESIN (Number average MW <= 700) (CAS: 25068-38-6)

Phototransformation

Air. DT50 6.44 hours

Estimated Value REACH dossier information

Stability (Hydrolysis)

pH4 Half-life: 116 hours @25°C

REACH dossier information

Biodegradation

Water Degradation (5%) 28 days

REACH dossier information

No biodegradation observed under test conditions.

BISPHENOL F EPOXY RESIN (CAS: 28064-14-4)

Biodegradation

Not determined.

PYROGENIC MICRO-DISPERSED SILICA (CAS: 7631-86-9)

Phototransformation

Not determined.

Stability (Hydrolysis)

Not determined.

The product is not biodegradable. Substance is inorganic

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

Ecological information on ingredients.

EPOXY RESIN (Number average MW <= 700) (CAS: 25068-38-6)

Bioaccumulative potential

The product is not bioaccumulating.

Bioaccumulation factor

BCF ~ 31

Estimated Value REACH dossier information

BISPHENOL F EPOXY RESIN (CAS: 28064-14-4)

Bioaccumulative potential

No data available on bioaccumulation.

PYROGENIC MICRO-DISPERSED SILICA (CAS: 7631-86-9)

Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility:

No data available.

Ecological information on ingredients.

EPOXY RESIN (Number average MW <= 700) (CAS: 25068-38-6)

Mobility:

Slightly soluble in water.

Adsorption/Desorption Coefficient

Soil log Koc ~ 2.65 @20°C

Estimated Value REACH dossier information

Henry's Law Constant

Not determined.

BISPHENOL F EPOXY RESIN (CAS: 28064-14-4)

Mobility:

No information available.

PYROGENIC MICRO-DISPERSED SILICA (CAS: 7631-86-9)

Mobility:

Slightly soluble in water.

Adsorption/Desorption Coefficient

Not available.

Henry's Law Constant

Not known.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

Ecological information on ingredients.

EPOXY RESIN (Number average MW <= 700) (CAS: 25068-38-6)

Not Classified as PBT/vPvB by current EU criteria.

BISPHENOL F EPOXY RESIN (CAS: 28064-14-4)

Not Classified as PBT/vPvB by current EU criteria.

PYROGENIC MICRO-DISPERSED SILICA (CAS: 7631-86-9)

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Do not allow runoff to sewer, waterway or ground.
Recover and reclaim or recycle, if practical.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082

14.2. UN proper shipping name

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN (Number average MW <= 700), BISPHENOL F EPOXY RESIN)

14.3. Transport hazard class(es)

ADR/RID/ADN Class	9
ADR/RID/ADN Class	Class 9: Miscellaneous dangerous substances and articles.
ADR Label No.	9
IMDG Class	9

ICAO Class/Division	9

Transport Labels

14.4. Packing group

ADR/RID/ADN Packing group	III
IMDG Packing group	III
ICAO Packing group	III

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

14.6. Special precautions for user

EMS	F-A, S-F
Emergency Action Code	•3Z
Hazard No. (ADR)	90
Tunnel Restriction Code	(E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not relevant

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date	09-2013
Supersedes date	01-2009
SDS No.	10623

Risk Phrases In Full	
R36/38	Irritating to eyes and skin.
R43	May cause sensitisation by skin contact.
NC	Not classified.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Hazard Statements In Full	
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.