



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

SDS n° : FP12431

GRAVICOL 2039 TC

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Former date 28-Sep-2005

Revision Date 24-Oct-2012

Version: 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name GRAVICOL 2039 TC
Chemical Name polyester glue
Pure substance/mixture Mixture

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

Sector of use polyester glue for composites, Contact us before using for food contact application.

1.3. Details of the supplier of the safety data sheet

Supplier CCP Composites UK Ltd
LAPORTE ROAD
STALLINGBOROUGH, NORTH EAST LINCS. DN41 8DR
UNITED KINGDOM
Tel: +44 (0) 1469 572464
Fax: +44 (0) 1469 572988

For further information, please contact

E-mail address Rccp.SDSmanagement@ccpcomposites.com
Internet Address <http://www.ccpcomposites.com>

1.4. Emergency telephone number

This telephone number is available 24 hours per day, 7 days per week.	
Europe, America, Middle East, Africa (European language countries) :	+44 (0) 1235 239 670
Middle East/Africa (Arabic speaking countries) :	+44 (0) 1235 239 671
Asia Pacific :	+65 3158 1074

SECTION 2: Hazards identification

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

2.1. Classification of the substance or mixture

Symbol(s) Xn - Harmful
Classification R10 - Xn;R48/20 - Xn;R20 - Xi;R36/37/38

2.2. Label elements

contains Styrene

Symbol(s) Xn - Harmful

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**R-phrases**

R10 - Flammable

R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation

R20 - Harmful by inhalation

R36/37/38 - Irritating to eyes, respiratory system and skin.

S-phrases

S16 - Keep away from sources of ignition - No smoking

S33 - Take precautionary measures against static discharges

S 7/9 - Keep container tightly closed and in a well-ventilated place.

Special labelling of certain mixtures

contains cobalt octoate, phthalic anhydride. May produce an allergic reaction.

2.3. Other hazards**Environmental properties**

Should not be released into the environment.

SECTION 3: Composition/information on ingredients

3.2. Mixtures**Hazardous components**

Chemical Name	EC-No	REACH Registration Number	CAS-No	Weight percent	Classification (67/548)	GHS Classification
Styrene	202-851-5	01-2119457861-3 2	100-42-5	~ 27	R10 Xn; R20 Xn; R48/20 Xn; R65 Xi; R36/37/38	Flam. Liq. 3 (H226) Eye Irrit. 2 (H319) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) STOT SE 3 (H335) STOT RE 1 (H372) Asp. Tox. 1 (H304)
cobalt octoate	205-250-6	01-2119524678-2 9	136-52-7	< 0.25	R43 N; R50/53	Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
phthalic anhydride	201-607-5	01-2119457017-4 1	85-44-9	< 1	Xn; R22 Xi; R37/38 Xi; R41 R42/43	Acute Tox. 4 (H302) STOT SE 3 (H335) Resp. Sens. 1 (H334) Eye Dam. 1 (H318) Skin Irrit. 2 (H315) Skin Sens. 1 (H317)

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

SECTION 4: First aid measures

4.1. Description of first aid measures**Eye Contact**

Rinse thoroughly with plenty of water, also under the eyelids
Keep eye wide open while rinsing
If symptoms persist, call a physician

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Skin contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes If skin irritation persists, call a physician
Inhalation	Move to fresh air If not breathing, give artificial respiration If symptoms persist, call a physician
Ingestion	Do NOT induce vomiting Rinse mouth If symptoms persist, call a physician
Protection of first-aiders	Use personal protective equipment

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

Eye Contact	Irritating to eyes
Skin contact	Irritating to skin
Inhalation	Harmful by inhalation Harmful: danger of serious damage to health by prolonged exposure through inhalation Irritating to respiratory system
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

General advice	If symptoms persist, call a physician Show this safety data sheet to the doctor in attendance Do not breathe dust/fume/gas/mist/vapours/spray
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Cool containers / tanks with water spray, Dry chemical, Foam, Carbon dioxide (CO ₂)
Extinguishing Media Which Must not be Used for Safety Reasons	Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases	Vapours may form explosive mixtures with air Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks)
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5.3. Advice for firefighters

Special protective equipment for fire-fighters	Wear self-contained breathing apparatus and protective suit.
Other information	Cool containers / tanks with water spray Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Remove all sources of ignition
Heat, flames and sparks
Take precautionary measures against static charges
Ensure adequate ventilation
Use personal protective equipment

6.2. Environmental precautions

Environmental precautions The product should not be allowed to enter drains, water courses or the soil
Do not flush into surface water or sanitary sewer system

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Contain spillage, and then collect with non-combustable absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13)
Use clean non-sparking tools to collect absorbed material

6.4. Reference to other sections

See Section 12 for additional Ecological Information

SECTION 7: Handling and storage7.1. Precautions for safe handling

Precautions for safe handling Avoid static electricity build up with connection to earth
Use only in area provided with appropriate exhaust ventilation
In case of insufficient ventilation, wear suitable respiratory equipment
Do not eat, drink or smoke when using this product
Wear personal protective equipment

Prevention of fire and explosion Keep away from open flames, hot surfaces and sources of ignition Do not use compressed air for filling, discharging or handling. Empty containers may contain flammable or explosive vapours

Hygiene measures When using, do not eat, drink or smoke
Provide regular cleaning of equipment, work area and clothing

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep in a dry, cool and well-ventilated place
Keep away from heat and sources of ignition.

Materials to avoid Strong oxidizing agents, Catalyst

Packaging material metallic GRP Tanks (Reinforced Glass Polyester)

Unsuitable materials for containers Aluminium copper Copper alloys

7.3. Specific end use(s)**SECTION 8: Exposure controls/personal protection**8.1. Control parameters

Occupational Exposure limits

Chemical Name	European Union	The United Kingdom	Ireland
Styrene 100-42-5	-	STEL 250 ppm STEL 1080 mg/m ³ TWA 100 ppm TWA 430 mg/m ³	TWA 20 ppm TWA 85 mg/m ³ STEL 40 ppm STEL 170 mg/m ³
cobalt octoate 136-52-7		STEL 0.3 mg/m ³ TWA 0.1 mg/m ³ Sen+	TWA 0.1 mg/m ³ Sensitizer
phthalic anhydride 85-44-9		STEL 12 mg/m ³ TWA 4 mg/m ³ Sen+	TWA 4 mg/m ³ STEL 12 mg/m ³ Sensitizer

Legend:

- + Sensitisers
- * Skin designation
- ** Hazard Designation
- C: Carcinogen
- M: Mutagen
- R: Toxic to reproduction

Biological standards

Chemical Name	European Union	The United Kingdom	Ireland
Styrene 100-42-5	-	We are not aware of any national exposure limit.	We are not aware of any national exposure limit.

8.2. Exposure controls

Occupational exposure controls

Engineering measures

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal protective equipment

General Information

Use personal protective equipment.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment. Breathing apparatus with filter. Type A.

Eye protection

Safety glasses with side-shields Do not wear contact lenses

Skin and body protection

Antistatic boots. Wear fire/flame resistant/retardant clothing.

Hand protection

Impervious gloves Glove material : Neoprene Nitriles Viton (R) Polyvinyl alcohol
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Environmental exposure controls

Environmental exposure controls Do not allow material to contaminate ground water system.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Property	Values	Remark
Appearance	Variable (This Data Sheet includes all the colours)	

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Physical state	Thixotropic paste	
Particle size		no data available
Odour	Styrene	
Odour Threshold		no data available
pH		no data available
pH (as aqueous solution)		no data available
Melting point/range		no data available
Freezing point		no data available
Boiling point		no data available
Flash point	31 °C	
Evapouration rate		no data available
Flammability Limits in Air		
upper	-	
lower	-	
Vapour pressure	6 hPa	20°C
Vapour density		no data available
Density	> 1.2 g/cm3	20°C
Water solubility		no data available
Partition coefficient: n-octanol/water		no data available
Autoignition temperature		no data available
Decomposition temperature		no data available
Viscosity	3550000 mPa.s	25 °C
Explosive properties		no data available
Oxidizing properties		no data available

9.2. Other information

<u>Property</u>	<u>Values</u>	<u>Remark</u>
Solubility in other solvents		no data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available

10.2. Chemical stability

Stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerisation Polymerisation can occur.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks
Exposure to light
Take precautionary measures against static charges.

10.5. Incompatible materials

Materials to avoid Strong oxidizing agents, Catalyst

10.6. Hazardous decomposition products

Hazardous decomposition products Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - Product Information

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Inhalation	Harmful by inhalation. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Irritating to respiratory system.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
Local effects	
Inhalation	Harmful by inhalation Harmful: danger of serious damage to health by prolonged exposure through inhalation Irritating to respiratory system
Skin contact	Irritating to skin
Eye Contact	Irritating to eyes
Sensitisation	
Inhalation	May produce an allergic reaction.
Skin contact	May produce an allergic reaction.
Chronic toxicity	
Target Organ Effects	Central nervous system (CNS). Reproductive System. Central Vascular System (CVS). Respiratory system. Eyes. Liver. Skin.
Specific effects	
Carcinogenicity	Animal testing did not show any carcinogenic effects.
Mutagenic Effects	Animal testing did not show any mutagenic effects
Reproductive toxicity	Animal testing did not show any effects on fertility
Developmental Toxicity	Animal studies did not show statistically significant developmental toxicological effects.

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Styrene	5000 mg/kg (Rat)	> 2000 mg/kg bw (Rat) 24h OECD 402	11.8 mg/L (Rat) 4h CSR
cobalt octoate	3129 mg/kg/bw (Rat)	> 2000 mg/kg/bw (Rat)	
phthalic anhydride	1530 mg/kg bw (Rat) OECD 401	> 3160 mg/kg bw (Rabbit)	> 2.14 mg/L (Rat) 4h OECD 403

SECTION 12: Ecological information

12.1. Toxicity

Do not flush into surface water or sanitary sewer system.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Styrene 100-42-5	LC50 (72h) = 4.9 mg/L (Algae)	EC50 (48h) = 4.7 mg/L (Daphnia magna)	LC50 (96h) = 4.02 - 10 mg/L (Fish)	EC (30min) = 500 mg/L (Activated sludge)
phthalic anhydride 85-44-9	EC0 (72h) >= 100 mg/L (Desmodesmus subspicatus) OECD 201	EC50 (48h) > 640 mg/L (Daphnia magna)	LC50 (7d) = 560 mg/L (Brachydanio rerio) OECD 210	EC50 (3h) > 1000 mg/L (Activated sludge) Method : ISO 8192

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

**Partition coefficient:
n-octanol/water**

Chemical Name	log Pow
Styrene - 100-42-5	3
phthalic anhydride - 85-44-9	1.6

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

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12.6. Autres effets néfastes**Other adverse effects** None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods**Waste from Residues/Unused Products** Dispose of in accordance with the European Directives on waste and hazardous waste.**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.**Other information** According to the European Waste Catalogue, Waste Codes are not product specific, but application specific
Waste codes should be assigned by the user based on the application for which the product was used.

14. TRANSPORT INFORMATION

ADR/RID not regulatedIMDG/IMO not regulatedICAO/IATA not regulatedADN not regulated

SECTION 15: Regulatory information

The mixture is classified as dangerous in accordance with Directive 1999/45/EC.15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**European Union**

Chemical Name	96/82/EC (SEVESO) - §9	96/82/EC (SEVESO) - §6, §7
Styrene - 100-42-5	50000	5000 tonne 50000 tonne

National regulatory information**The United Kingdom**

Avoid exceeding of the given occupational exposure limits (see section 8).

Ireland

Avoid exceeding of the given occupational exposure limits (see section 8).

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

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Full text of R-phrases referred to under sections 2 and 3

R10 - Flammable

R20 - Harmful by inhalation

R65 - Harmful: may cause lung damage if swallowed

R43 - May cause sensitisation by skin contact

R41 - Risk of serious damage to eyes

R22 - Harmful if swallowed

R36/37/38 - Irritating to eyes, respiratory system and skin

R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation

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

R42/43 - May cause sensitisation by inhalation and skin contact

R37/38 - Irritating to respiratory system and skin.

Former date 28-Sep-2005**Revision Date** 24-Oct-2012**Revision Note** not applicable.**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006****Disclaimer**

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

End of Safety Data Sheet