



SAFETY DATA SHEET

CELLOPHANE™

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name	CELLOPHANE™
Product Uses	Printing, packaging, laminating, coating and labels.
Company	Innovia Films Ltd Wigton . Cumbria CA7 9BG . UK
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Product Description	CELLOPHANE™ is Innovia Films' range of cellulose films made from regenerated cellulose. Depending on the grade of film, it could also contain glycerol, monopropylene glycol, triethylene glycol, polyethylene glycol and/or urea. Coated film also contains a formulated PVdC, vinyl acetate/vinyl chloride copolymer or nitrocellulose resin. Coloured films will contain various pigments and dyes. The film may also contain other optional ingredients to meet technical requirements.
CAS No.	68442-85-3 (Regenerated cellulose)
CAS No.	9004-70-0 (Nitrocellulose resin)
CAS No.	9002-85-1 (PVdC resin)
CAS No.	9003-22-9 or 9005-09-8 (Vinyl acetate/vinyl chloride copolymer resin)
Hazardous Ingredients	No classifiable hazardous ingredients.
Heavy Metals	Pb, Cd, Hg, Cr and As content of product is very low (< 100ppm in total).

3. HAZARDS IDENTIFICATION

Unlikely to cause harmful effects under normal conditions of handling and use.



SAFETY DATA SHEET

CELLOPHANE™

4. FIRST AID MEASURES

Only normally needed for inhalation of smoke from burning material. Treat in the same way as wood smoke inhalation.

Inhalation	Remove patient from exposure. Obtain medical attention if ill effects occur.
Skin Contact	No adverse effects.
Eye Contact	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Ingestion	Unlikely to be required but if necessary, treat symptomatically.
Further medical treatment	Unlikely to be required but if necessary, treat symptomatically.

5. FIRE FIGHTING MEASURES

Combustible but not readily ignited. Unlikely to ignite except in high heat flux conditions. Persistent application of a flame will ignite the material. Combustion will evolve toxic and irritant vapours. These vapours are broadly comparable to those of many natural products such as wood. At complete combustion the major products formed will include oxides of carbon and water.

Extinguishing Media	Any commonly available fire extinguisher.
Fire Fighting Protective Equipment	A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Scrap film generated through processing, e.g. slitting/shredding, should be swept up and disposed of in drums or plastic bags.



SAFETY DATA SHEET

CELLOPHANE™

7. HANDLING AND STORAGE

Handling - Process Hazards

Static - In most processes in which there is movement of film (of any kind) over metal or other rollers, surface electrical charges can develop on the film, although with Cellophane™ this is less likely. Static charges should be eliminated or reduced as much as possible, since they can provide a source of ignition for flammable vapours and gases or may give electrical shock to operators. Use either passive or active static eliminators to reduce the charges.

Reeling - Machine design and work practices should be organised to remove the danger of trapping parts of the body, or clothing, in reeled materials and between film and machinery parts.

Dusts - Operations which produce dusts (e.g. compounding, slitting, cutting and grinding) should be controlled so that the appropriate exposure standard for dusts is not exceeded. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it.

Heat Sealing - Sealed areas should not be touched until they have been allowed to cool. During the heat sealing of PVdC or vinyl chloride/vinyl acetate coated cellulose films, very slight decomposition of the coating occurs producing hydrogen chloride. Even under adverse conditions the concentration of these fumes is likely to be below the Occupation Exposure Standard (OES) in the vicinity of the heat sealing equipment, however adequate ventilation is recommended at all times. PVdC-coated films may contain trace quantities of residual co-monomer - predominantly vinylidene chloride, which may be released during heat sealing. Even under adverse conditions the concentration of fumes is likely to be less than the OES.

Chemicals produced during thermal decomposition are highly dependent upon temperature and conditions. It is therefore impossible to be precise about which substances may be evolved. However, it is only the minor components which vary substantially. The major components are given in Section 10. Atmospheric levels should be controlled using the principles of good occupational hygiene practice.

Storage

Keep away from heat, sources of ignition and avoid excessive exposure to light.

Recommended Storage Conditions:	17-23 deg. C 35-55% relative humidity
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SAFETY DATA SHEET

CELLOPHANE™

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

No special precautions required.

Occupational Exposure Limits are similar to those for other inert powders.

i) 10 mg/m³ (ppm) for Inhalable Dust (8 hour Time Weighted Average, TWA)

ii) 5 mg/m³ (ppm) for Respirable Dust (8 hour Time Weighted Average, TWA)

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Film
Colour	Depends on grade: transparent, coloured, opaque, metallised
Odour	Odourless
Flash Point (Deg C)	Not applicable
Explosive Properties	No data
Solubility (Water)	Insoluble
Minimum Ignition Temperature (Deg C)	> 300 (ASTM D1929-96)
Decomposition Temperature (Deg C)	290
Upper Melt Temperature (Deg C)	Not applicable (ASTM E794-85)

10. STABILITY AND REACTIVITY

Hazardous Reactions	None known. Inert.
Hazardous Decomposition Product(s)	Above the decomposition temperature the major volatiles will be: carbon monoxide, carbon dioxide, hydrogen chloride (from PVdC and vinyl acetate/vinyl chloride coated grades), nitrous oxides (nitro-cellulose coated grades).



SAFETY DATA SHEET

CELLOPHANE™

11. TOXICOLOGICAL INFORMATION

Inhalation	Combustion products may be irritant. High concentrations of dust may be irritating to the respiratory tract.
Skin Contact	Sharp edges may cause cuts. No evidence of irritant effects from normal handling and use.
Eye Contact	Flake or dust particles may cause eye irritation.
Ingestion	Highly unlikely under normal industrial use.
Long Term Exposure	This material has been in use for many years with no evidence of adverse effects.

12. ECOLOGICAL INFORMATION

Environmental Fate and Distribution

Solid with low volatility. The product is essentially insoluble in water.

Toxicity

Adverse effects would not be expected.

13. DISPOSAL CONSIDERATIONS

The product should be burned in an incinerator capable of high temperatures and long residence times, to ensure complete combustion. Disposal should be in accordance with local, state or national legislation.

14. TRANSPORT INFORMATION

Not classified as Dangerous for Transport.

15. REGULATORY INFORMATION

Not classified as Dangerous for Supply/Use.



SAFETY DATA SHEET

CELLOPHANE™

16. OTHER INFORMATION

This data sheet was prepared in accordance with Directive 2001/58/EC.

There are many CELLOPHANE™ grades which have full regulatory approval for food contact applications in both Europe and the USA. Please consult Innovia Films Ltd for confirmation of food contact status.

Whilst Innovia Films aims to ensure the accuracy and relevance of the information given on the use and application of its products, it cannot guarantee the data, some of which is based on outside sources, or its completeness. Customers must remain responsible for their own product testing and evaluation and for their own safety procedures. Customers should contact Innovia Films if they have any doubts as to the suitability of the product for their particular application or on safety procedures. Innovia Films review, and may modify, the information contained in this document from time to time and customers should ensure they have the latest information.

CELLOPHANE™ is a trademark of Innovia Films Group.

Issue 1 replaces ref. RCFBUS 3G001 and reflects the company name change from Surface Specialties to Innovia Films.

OTHER ADDRESSES

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CENSAM - SALES & MARKETING MANUAL

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1	28.1.05	Issue 1 (replacing RCFBUS 3G001 Issue 3)	S Langstaff