



MATERIAL SAFETY DATA SHEET

TP32 Thermochromic FF Powder - Bis A Free

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MSDS081 Revision 0
Revision Date 4/6/2010

1. PRODUCT AND COMPANY IDENTIFICATION

Product name Thermochromic FF Powder BIS A Free

Description Thermochromic powder for use in color change inks. May be used to prepare color change plastic masterbatch.

Company LCR Hallcrest
1911 Pickwick Lane
Glenview
IL 60026

Telephone +1 847 998 8580

Fax +1 847 998 6866

Emergency telephone number +1 847 998 8580

2. HAZARDOUS IDENTIFICATION.

Statement of Hazard

Properties

Color	Various colors according to type
Odor	Slight
State	Powder

3. COMPOSITION / INFORMATION ON INGREDIENTS.

Hazardous ingredients

	Conc.	CAS
Formaldehyde...% (Formaldehyde)	0 - 0.5%	50-00-0

4. FIRST AID MEASURES

Skin contact May cause irritation to skin. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.

Eye contact May cause irritation to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.

Inhalation Move the exposed person to fresh air. Seek medical attention. Irritating to respiratory system.

Ingestion Harmful if swallowed. Ingestion may cause nausea and vomiting. DO NOT INDUCE VOMITING. If swallowed, seek medical advice immediately and show this container or label.

5. FIRE FIGHTING MEASURES

Extinguishing media Use as appropriate: carbon dioxide (CO₂), dry chemical, foam.

Fire hazards Burning produces irritating, toxic and obnoxious fumes.

Protective equipment Self-contained breathing apparatus. Wear protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Ensure adequate ventilation of the working area. Wear suitable protective equipment.

Environmental precautions Do not allow product to enter drains. Prevent further spillage if safe.

Clean up methods Avoid raising dust. Sweep up. Transfer to suitable, labeled containers for disposal. Clean spillage area thoroughly with plenty of water.

7. HANDLING AND STORAGE

Handling Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Adopt best Manual Handling considerations when handling, carrying and dispensing.

Storage Keep in a cool, dry, well ventilated area. Keep containers tightly closed.

Specific use On processing FF powders for masterbatch heating may result in generation of formaldehyde. Ensure adequate ventilation of all fumes.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

Formaldehyde...% (Formaldehyde)	ACGIH TLV TWA: - Notations: SEN; A2 OSHA PEL 8hr TWA mg m3: -	ACGIH TLV STEL: C 0.3 ppm OSHA PEL 8hr TWA ppm: - Skin Designation: -
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Engineering measures Ensure adequate ventilation of the working area.

Respiratory protection Do not breathe dust or vapor. Wear suitable respiratory equipment when necessary. Wear suitable protective equipment.

Hand protection Chemical resistant gloves (PVC)

Eye protection Approved safety goggles.

Protective equipment Wear chemical protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Description	Powder
Color	Various colors according to type
Odor	Slight
Boiling point	N/A°C
Flash point	N/A°C

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

12. ECOLOGICAL INFORMATION

Ecotoxicity No data is available on this product.

13. DISPOSAL CONSIDERATIONS

General information Dispose of in compliance with all local and national regulations.

14. TRANSPORT INFORMATION

Further information The product is not classified as dangerous for carriage.

15. REGULATORY INFORMATION

Inventories

Ingredient	TSCA	MA	SARA313	CALPROP65	CWA307	CAA112	CWA311	SARA302	SARA304
Formaldehyde...%	Y	Y	Y 0.1	Y	N	Y	Y	Y 500	Y 100

16. OTHER INFORMATION

Statement of Hazard

Further information The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This 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 other process.

HMIS LABELLING HEALTH 1, FLAMMABILITY 1, PHYSICAL HAZARD 1.



MATERIAL SAFETY DATA SHEET

THERMOCHROMIC POWDER

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MSDS007 Revision 1
Revision date 3/18/2009

1. PRODUCT AND COMPANY IDENTIFICATION

Product name THERMOCHROMIC POWDER

Description Thermo-chromic powder for use in color change inks. May be used to prepare color change plastic masterbatch.

Company LCR Hallcrest
1820 Pickwick Lane
Glenview
IL 60026

Telephone +1 847 998 8580

Fax +1 847 998 6866

Emergency telephone number +1 847 998 8580

2 HAZARDS IDENTIFICATION.

Statement of Hazard

Properties

Odor Slight

Main hazards Irritating to eyes. May cause sensitization by skin contact. Possible risk of impaired fertility.

3 . COMPOSITION / INFORMATION ON INGREDIENTS.

Hazardous ingredients

	Conc.	CAS
Formaldehyde... % (Formaldehyde)	0-0.5%	50-00-0
4,4'-Isopropylidenediphenol	1-10%	80-05-7

4. FIRST AID MEASURES

Skin contact May cause irritation to skin. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.

Eye contact May cause irritation to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.

Inhalation Move the exposed person to fresh air. Seek medical attention. Irritating to respiratory system.

Ingestion Harmful if swallowed. Ingestion may cause nausea and vomiting. DO NOT INDUCE VOMITING. If swallowed, seek medical advice immediately and show this container or label.

THERMOCHROMIC POWDER

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5. FIRE FIGHTING MEASURES

Extinguishing media	Use as appropriate: carbon dioxide (CO ₂), dry chemical, foam.
Fire hazards	Burning produces irritating, toxic and obnoxious fumes.
Protective equipment	Self-contained breathing apparatus. Wear protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Ensure adequate ventilation of the working area. Wear suitable protective equipment.
Environmental precautions	Do not allow product to enter drains. Prevent further spillage if safe.
Clean up methods	Avoid raising dust. Sweep up. Transfer to suitable, labeled containers for disposal. Clean spillage area thoroughly with plenty of water.

7. HANDLING AND STORAGE

Handling	Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Adopt best Manual Handling considerations when handling, carrying and dispensing.
Storage	Keep in a cool, dry, well ventilated area. Keep containers tightly closed.
Specific use	On processing FF powders for masterbatch heating may result in generation of formaldehyde. Ensure adequate ventilation of all fumes.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

Formaldehyde...% (Formaldehyde)	ACGIH TLV TWA: - Notations: SEN; A2 OSHA PEL 8hr TWA mg m ³ : -	ACGIH TLV STEL: C 0.3 ppm OSHA PEL 8hr TWA ppm: - Skin Designation: -
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Engineering measures	Ensure adequate ventilation of the working area.
Respiratory protection	Self-contained breathing apparatus. Wear protective clothing.
Hand protection	Chemical resistant gloves (PVC)
Eye protection	Approved safety goggles.
Protective equipment	Wear chemical protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Description	Powder.
Odor	Slight.
pH	N/A
Boiling point	N/A°C
Flash point	N/A°C
Water solubility	Insoluble in water.
Evaporation rate	N/A
Melting point	N/A°C
VOC (Volatile organic compounds)	0 g/l

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
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11. TOXICOLOGICAL INFORMATION

THERMOCHROMIC POWDER

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12. ECOLOGICAL INFORMATION

Ecotoxicity No data is available on this product.

13. DISPOSAL CONSIDERATIONS

General information Dispose of in compliance with all local and national regulations.

14. TRANSPORT INFORMATION

Further information The product is not classified as dangerous for carriage.

15. REGULATORY INFORMATION

Inventories

Ingredient	TSCA	MA	SARA313	CALPROP65	CWA307	CAA112	CWA311	SARA302	SARA304
Formaldehyde...%	Y	Y	Y 0.1	Y	N	Y	Y	Y 500	Y 100
4,4'-Isopropylidenediphenol	Y	Y	Y 1.0	N	N	N	N	N	N

16. OTHER INFORMATION

Statement of Hazard

Further information The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This 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 other process.

Revision This document differs from the previous version in the following areas:

9 - flash point.

9 - vOC (Volatile organic compounds).

Maximum content of VOC 0 g/l

HMIS LABELLING HEALTH 1, FLAMMABILITY 1, PHYSICAL HAZARD 1.