



MATERIAL SAFETY DATA SHEET

ColoTemp Color Change Crayons

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MSDS074 Revision 0
Revision Date 2/8/2010

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	ColoTemp Color Change Crayons
Description	Crayons that change color irreversibly
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
Intended use	Temperature Measurement and Thermal Mapping.

2. HAZARDOUS IDENTIFICATION.

Statement of Hazard Properties	Range 1, 2 & 4 – Some cobalt compounds have been shown to produce dermatitis and sensitization. Ingestion may be harmful. Range (C3AY) Range 8 May cause harm to the unborn child. Possible risk of impaired fertility. Lead based pigments are cumulative poison. Possible risk of irreversible effects. Harmful if swallowed. Should not be used on surface liable to be chewed by children
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3. COMPOSITION / INFORMATION ON INGREDIENTS.

Properties	Each product listed has a fixed value within the ranges below. The exact formulation is confidential. Constituents classified as hazardous to health or with an exposure limit (see section 11)
	<u>Range 1,2 & 4:</u>
	Cobalt based pigments R20/22, 36/37/38 <25%
	Paraffin wax <70%
	<u>Range 8</u>
	C.I pigment green 15 R61,R33, R40, R50/53 <10%
	<u>Range YC3A</u>
	C.I. Pigment Yellow 34 R61, R33, R40, R50/53 <15%
	Together with mixed pigments and wax not classified as dangerous for supply.

4. FIRST AID MEASURES

Skin contact	Prolonged contact may possibly cause irritation, dermatitis or sensitization. Wash off with soap and water. Remove contaminated clothing; seek medical attention if irritation persists.
Eye contact	May cause possible irritation and redness. Wash eyes with plenty of water for at least 15 minutes. If irritation persists seek medical attention.
Inhalation	FUMES on Heating only. Possible irritation of respiratory systems and coughing. Remove patient to fresh air away from fumes, avoid inhalation of fumes.
Ingestion	Possible irritation of digestive system. Seek medical attention immediately. If delayed and patient conscious, give milk and activated charcoal. Range 8 and (C3AY) – cumulative poison – Effects typical of lead pigments.

5. FIRE FIGHTING MEASURES

Extinguishing media	Alcohol resistant foam, dry chemical, CO2 or water fog.
Fire hazards	Smoke and toxic fumes containing oxides of carbon and other products of combustion may be generated.
Protective equipment	Wear self containing breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Clean up methods	Collect crayons.
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7. HANDLING AND STORAGE

Handling	Do not inhale fumes generated when used on hot surfaces. Avoid repeated skin contact. Use in a well ventilated area or preferably under local exhaust ventilation. Do not smoke, eat or drink while using crayons.
Storage	Where this cannot be practically achieved a suitable chemical cartridge respirator or air fed visor must be used.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation	Fumes generated in use should be controlled using local exhaust ventilation.
Respiratory Protection	Where this cannot be practically achieved a suitable chemical cartridge respirator or air feed must be used.
Eyes / Face	N/A.
Protective equipment	Gloves may be worn. Contaminated personal protective equipment and clothing must be cleaned before use

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Wax crayons with color change according to range
Odor	Faint wax odor.
pH	N/A
Melting point/ range	N/A
Boiling point/ range	N/A
Flammability	Will support combustion.
Auto flammability	N/A
Flash point	N/A
Oxidizing properties	N/A
Explosive properties	N/A
Relative density	N/A
Solubility	Insoluble in water.

10. STABILITY AND REACTIVITY

Stability	<u>All Ranges</u> Crayons are stable. Wax may react with oxidizing agents.
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16. OTHER INFORMATION

Range (C3AY) and Range (8)

Risk Phrases

- R20/22 Harmful by inhalation if swallowed
R33 Danger of cumulative effects
R40 Possible risk of irreversible effects
R61 May cause harm to the unborn child
R62 Possible risk of impaired fertility

Safety Phrases

- S36/37 Wear suitable protective clothing and gloves
S51 Use only in a well ventilated area

Range (C3AY)

- S45 In case of accident or feeling unwell seek medical attention
S60 This material must be disposed of as hazardous waste
S62 Avoid release to the environment

HMIS

Ranges 1, 2 ,4, 8 C3AY

Health 2, Flammability 1, Physical 0, Personal protection B

Ranges 3, 5, 6, 7

Health 0, Flammability 1, Physical 0, Personal protection B

These products are manufactured and supplied solely for use as temperature indicating crayons and must be applied in accordance with technical instructions.