

**MATERIAL SAFETY DATA SHEET****I PRODUCT INFORMATION****PRODUCT IDENTIFIER:** G & S Liquid Dyes**CHEMICAL FAMILY:** All G & S Liquid Dyes are water-based. Procion H dye powders, urea, ludigol, sodium carbonate and sodium bicarbonate are used in dye formulations.**PRODUCT USE:** G & S Liquid Dyes are used to dye natural fabrics. Dyes are brushed on fabric and allowed to dry. Fabric is then rolled in paper, steamed and finally rinsed.**MANUFACTURER:** G & S Dye & Accessories Limited.  
300 Steelcase Road West, Unit #19  
Markham, Ontario  
L3R 2W2**EMERGENCY TELEPHONE:** (905) 415-8559**II HAZARDOUS INGREDIENTS**

INGREDIENT	CAS No. :	% w/w	ACUTE LETHALITY
Procion 'H' dye powders	N/E <sup>(1)</sup>	3 - 12%	LD <sub>50</sub> (Rat, oral) >5000 mg/kg
Urea	57-13-6	5 - 15%	LD <sub>50</sub> (Rat, oral) 14,000 mg/kg
Ludigol	127-68-4	1 - 2%	LD <sub>50</sub> (Rat, oral) 11,000 mg/kg
Sodium Carbonate	5968-11-6	0 - 4%	LD <sub>50</sub> (Rat, oral) 2,800 mg/kg
Sodium Bicarbonate	144-55-8	0 - 3%	LD <sub>50</sub> (Rat, oral) 4,200 mg/kg
Water		Balance	

**III PHYSICAL DATA**

**APPEARANCE, PHYSICAL STATE and ODOUR:** Coloured liquids, odourless

**FREEZING POINT:** approx. 0°C      **VAPOUR PRESSURE:** Not applicable

**BOILING POINT:** approx. 100°C      **VAPOUR DENSITY:** Not applicable

**SOLUBILITY in WATER:** 100%      **EVAPORATION RATE:** Not established

**SPECIFIC GRAVITY:** approx. 1.0      **pH:** Not Established

**COEFFICIENT OF WATER/OIL:**      **ODOUR THRESHOLD:** Not applicable

**DISTRIBUTION:** Not established      **% VOLATILE:** Not established

**IV FIRE or EXPLOSION HAZARD**

**CONDITIONS of FLAMMABILITY:** Not combustible (Does not burn)

**FLASH POINT:** Not applicable      **METHOD:** Not applicable

**AUTOIGNITION TEMPERATURE:** Not applicable

**LOWER EXPLOSIVE LIMIT:** N/A      **UPPER EXPLOSIVE LIMIT:** N/A

**EXTINGUISHING MEDIA:** If involved in a fire, use suitable extinguishing media for the flammable/combustible material giving rise to the fire.

<sup>1)</sup> N/E - Not Established

N/A - Not Applicable

**SPECIAL PRECAUTIONS:** If involved in a fire, use precautions appropriate for the flammable/combustible material giving rise to the fire.

**HAZARDOUS COMBUSTION PRODUCTS:** None

**EXPLOSION DATA:** Not applicable

**SENSITIVITY TO MECHANICAL IMPACT:** Not applicable

**SENSITIVITY TO STATIC DISCHARGE:** Not applicable

## V REACTIVITY DATA

**STABILITY:** Unstable  **CONDITIONS TO AVOID:**  
Stable  Urea may slowly decompose to ammonia and CO<sub>2</sub>

### HAZARDOUS POLYMERIZATION:

May occur  **CONDITIONS TO AVOID:**  
Will not occur

**INCOMPATIBLE MATERIALS:** Incompatibility may occur with strong oxidizing or reducing agents, phosphorus pentachloride, hypochlorites, gallium perchlorate, strong acids, and strong alkalis.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, nitrogen oxides, ammonia, sulphur, sulphides, sulphur oxides, halogen and halogen acids.

**REACTIVITY CONDITIONS:** Do not mix, use or store incompatible agents with the product. Do not overheat the liquid dye products or boil dry.

## VI TOXICOLOGICAL PROPERTIES

### SIGNIFICANT ROUTES of EXPOSURE:

Inhalation  Eye Contact  Skin Contact  Skin Absorption  Ingestion

### OCCUPATIONAL EXPOSURE LIMITS:

	ACGIH™ 1995-96	ONT. REG. 845/90
	TLV-TWA™	TWAEV
Urea (in powder form as nuisance dust)	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
Lugidol (powder form as nuisance dust)	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>

### ACUTE EFFECTS:

**EYE CONTACT:** May produce slight irritation.

**SKIN CONTACT:** May produce slight irritation.

**INHALATION:** No significant effects.

**INGESTION:** Extremely excessive oral doses may produce gastrointestinal disturbances.

**CHRONIC EFFECTS:**

Chronic exposure via skin or eye contact may produce slight irritation.

**CARCINOGENICITY:**

Neither the product itself nor any of its constituents has been classified as a confirmed or suspected human carcinogen by either the ACGIH™ or IARC.

**TERATOGENICITY & EMBRYOTOXICITY:** No effects established.

**REPRODUCTIVE TOXICITY:** No reproductive effects established.

**MUTAGENICITY:** No mutagenic effects established.

**IRRITATION:** Transient irritation of the eyes and the skin due possible.

**SENSITIZATION:** Not reported as a skin or respiratory sensitizer.

**SYNERGISTIC SUBSTANCES:** No synergistic effects established.

**POTENTIAL FOR ACCUMULATION:** Does not accumulate in the body.

**MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED:** Pre-existing skin conditions such as dermatitis, eczema, dry skin and others.

**PRINCIPAL TARGET ORGAN:** Skin **PRIMARY ENTRY ROUTE:** Skin & Eye Contact

---

**VII FIRST AID**

**EYES:** Do not rub eyes. Flush eyes with copious amounts of warm water while holding eyelids apart. Obtain medical attention if irritation persists.

**SKIN:** Wash off with copious amounts of warm water and a mild soap. Avoid use of strong industrial detergents or solvents to remove dye stains. Skin discoloration is not permanent.

**INHALATION:** Remove from exposure. Consult a physician if symptoms persist.

**INGESTION:** Drink plenty of water. Consult a physician or poison control centre.

---

**VIII PREVENTIVE MEASURES**

**ENGINEERING CONTROLS:** None normally required.

**HANDLING EQUIPMENT AND PROCEDURES:** Product should be handled in such a manner as to avoid splashing or creating a mist of the liquid dye. Follow good occupational hygiene work practices to avoid skin and eye contact.

**STORAGE REQUIREMENTS:** Store in sealed containers in a cool, dark area out of direct sunlight. Do not store or use product in vicinity of incompatible agents. Do not overheat or boil dry. Keep container closed when not in use to avoid spills.

**PERSONAL PROTECTIVE EQUIPMENT:**

**EYES:** Use of safety glasses with side shields is recommended.

**SKIN:** Use of rubber gloves and protective clothing is recommended.

**RESPIRATORY:** Respiratory protective equipment not normally required.

**SPECIAL SHIPPING INFORMATION:** None

**SPILL OR LEAK PROCEDURE:** Soak up spill with absorbent material. Wear skin and eye protection to avoid contact. Flush contaminated area with water after spill is removed.

**WASTE DISPOSAL:** Comply with local, provincial and federal regulations.

---

**IX PREPARATION INFORMATION**

**DATE OF ISSUE:** 2015/01/01      **MSDS No.:** 02.ML      Issue 2

**DATE OF ORIGINAL ISSUE:** 89/04/14 (by Ortech International)

**PREPARED BY:** MONSERCO Limited      **TELEPHONE:** (905) 450-3507  
190 Wilkinson Road  
Brampton, Ontario  
L6T 4W3

**REFERENCES:**

1. ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices, 6<sup>th</sup> Edition, 1991 and Supplements
  2. IARC Overall Evaluations of Carcinogenicity: An Update of IARC Monographs Volumes 1 to 42, Supplement 7, Lyons France, 1987
  3. Regulation respecting Control of Exposure to Biological or Chemical Agents – made under the Occupational Health and Safety Act, Ontario regulation 833/90.
- 

The information contained herein is believed to be correct as of the date of preparation. No guarantee or warranty of any kind, either expressed or implied, is made with respect to this information. Monserco will not be held responsible for damages of any kind resulting from the use or reliance upon such information.

---