



SAFETY DATA SHEET

Issue Date 25-Oct-2018

Revision Date 09-Dec-2020

Version 4

ES-600

E-Stain Ebony ES-600

1. IDENTIFICATION

Product identifier

Product Name E-Stain Ebony ES-600

Other means of identification

Product Code ES-600

Recommended use of the chemical and restrictions on use

Recommended Use Restricted to professional users.

Uses advised against Consumer use

Details of the supplier of the safety data sheet

Supplier Address

Solomon Colors, Inc.
4050 Color Plant Road
Springfield, IL
62702

Manufacturer Address

Solomon Colors, Inc.
4050 Color Plant Road
Springfield, IL
62702

24 Hour Emergency Phone Number 800-373-7542 Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemical

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This product is classified as hazardous according to the criteria contained in the Hazard Communication Standard 29 CFR 1910.1200 (known as HCS 2012) and the Hazardous Products Regulations SOR/2015-17 (known as WHMIS 2015).

Acute toxicity - Oral	Category 4.
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin corrosion/irritation	Category 1
Subcategory	Sub-category B
Serious eye damage/eye irritation	Category 1
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Reproductive toxicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 1

Label elements

Emergency Overview

Danger

Hazard statements

Harmful if swallowed
Toxic if inhaled
Causes severe skin burns and eye damage
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May cause genetic defects
May cause cancer
May damage fertility or the unborn child
Causes damage to organs through prolonged or repeated exposure

**Appearance** Cloudy liquid**Physical state** Liquid**Odor** Slight**Precautionary Statements - Prevention**

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing must not be allowed out of the workplace
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor
Specific treatment see section 4 of the SDS.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing
Immediately call a POISON CENTER or doctor
Rinse mouth
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
Do NOT induce vomiting

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)**Other Information**

- Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
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Proprietary Acid Solution	Proprietary	10-15	*
Manganese Chloride	7773-01-5	5-10	*
Sodium dichromate	10588-01-9	4-7	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.
Skin Contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Artificial respiration and/or oxygen may be necessary. Call a physician or poison control center immediately.
Ingestion	If swallowed, call a poison control center or physician immediately. Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms	May be harmful if swallowed. May be toxic if inhaled. Causes severe skin burns and eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause cancer. May cause genetic defects. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

Contact with metals may evolve flammable hydrogen gas. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Runoff may pollute waterways.

Hazardous combustion products Thermal decomposition can lead to the release of irritating gases and vapors. Carbon monoxide. Carbon dioxide (CO₂). Hydrogen chloride. Sulfur Oxides. Copper Oxides. Nitrogen oxides (NO_x).

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full

protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Keep people away from and upwind of spill/leak. Ventilate affected area. Avoid contact with skin, eyes and inhalation of vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if you can do it without risk.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Prevent further leakage or spillage if safe to do so. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Dike far ahead of liquid spill for later disposal. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for cleaning up Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Avoid breathing vapors or mists. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep/store only in original container. Keep in properly labeled containers. Keep from freezing. Do not reuse container.

Incompatible materials Strong oxidizing agents. Metals. Magnesium, Phosphates, Acetylene, Hydrazine, and Zirconium. This material may be extremely hazardous in contact with chlorates and nitrates. Contact with hypochlorites (eg. Chlorine bleach, sulfides or cyanides) will liberate toxic gases. Alkali.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Manganese Chloride 7773-01-5	TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	(vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 500 mg/m ³ Mn TWA: 1 mg/m ³ Mn STEL: 3 mg/m ³ Mn
Sodium dichromate 10588-01-9	STEL: 0.0005 mg/m ³ Cr(VI) inhalable particulate matter TWA: 0.0002 mg/m ³ Cr(VI) inhalable particulate matter S*	TWA: 5 µg/m ³ (vacated) Ceiling: 0.1 mg/m ³ Ceiling: 0.1 mg/m ³ CrO ₃ applies to any operations or sectors for which the Hexavalent Chromium standard [29 CFR 1910.1026] is stayed or is otherwise not in effect	IDLH: 15 mg/m ³ Cr(VI) TWA: 0.0002 mg/m ³ Cr

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas. Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles. Face protection shield.

Skin and body protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations

Wash face, hands and any exposed skin thoroughly after handling. Use personal protective equipment as required. Avoid prolonged or repeated contact with skin. Avoid breathing (dust, vapor, mist, gas). Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Slight
Appearance	Cloudy liquid	Odor threshold	No information available
Color	Green		
Property	Values	Remarks • Method	
pH	No information available		
Melting point/freezing point	No information available		
Boiling point / boiling range	No information available		
Flash point	No information available		
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	No information available		
Lower flammability limit:	No information available		
Vapor pressure	No information available		

Vapor density	No information available
Specific Gravity	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	9.7 lbs/gal

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Strong oxidizing agents. Metals. Magnesium, Phosphates, Acetylene, Hydrazine, and Zirconium. This material may be extremely hazardous in contact with chlorates and nitrates. Contact with hypochlorites (eg. Chlorine bleach, sulfides or cyanides) will liberate toxic gases. Alkali.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Hydrogen chloride. Sulfur oxides. Copper Oxides. Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	May be harmful if swallowed. Toxic if inhaled. Causes severe skin burns and eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause cancer. May cause genetic defects. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.
Inhalation	Toxic by inhalation. May cause sensitization by inhalation.
Eye contact	Corrosive to the eyes and may cause severe damage including blindness.
Skin Contact	Corrosive. Contact causes severe skin irritation and possible burns. The product causes burns of eyes, skin and mucous membranes. May cause an allergic skin reaction.
Ingestion	Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Manganese Chloride 7773-01-5	= 250 mg/kg (Rat)	-	-
Sodium dichromate 10588-01-9	= 46 mg/kg (Rat)	= 960 mg/kg (Rabbit)	= 200 mg/m ³ (Rat) 4 h

Information on toxicological effects

Symptoms	Acute Toxicity - Oral- Cat. 4: Harmful if swallowed. Acute Toxicity-Inhalation Cat 3. Toxic if inhaled. based on the acute toxicity estimate for the mixture components.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Skin Corrosion Cat 1. (based on mixture components). Causes severe burns.
Serious eye damage/eye irritation	Eye Damage Cat 1. (based on mixture components). Risk of serious damage to eyes.
Sensitization	Respiratory Sensitizer Cat. 1. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Skin Sensitizer Cat 1. May cause an allergic skin reaction.
Germ cell mutagenicity	Mutagenic. Contains a known or suspected mutagen.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium dichromate 10588-01-9	A1	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A1 - *Known Human Carcinogen*

IARC (International Agency for Research on Cancer)

Group 1 - *Carcinogenic to Humans*

NTP (National Toxicology Program)

Known - *Known Carcinogen*

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - *Present*

Reproductive toxicity	Product is or contains a chemical which is a known or suspected reproductive hazard.
STOT - single exposure	Not classified. (Based on mixture components).
STOT - repeated exposure	STOT RE 1. Causes damage to lungs and blood system through prolonged or repeated exposure by inhalation.
Aspiration hazard	Not classified. (Based on mixture components).

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	1060.9 mg/kg
ATEmix (dermal)	16417.9 mg/kg
ATEmix (inhalation-gas)	> 20,000 mg/l
ATEmix (inhalation-dust/mist)	0.7478 mg/l
ATEmix (inhalation-vapor)	> 20 mg/l

12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a severe marine pollutant according to DOT.

Ecotoxicity

Very toxic to aquatic life with long lasting effects

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

Chemical Name	California Hazardous Waste Status
Manganese Chloride 7773-01-5	Toxic
Sodium dichromate 10588-01-9	Toxic Corrosive Ignitable

14. TRANSPORT INFORMATION

DOT

Marine pollutant

Not regulated (If shipped in NON BULK packaging by ground transport) Exempt under DOT 49 CFR 173.154 (d). This material is corrosive to aluminum only.
This product contains a chemical which is listed as a severe marine pollutant according to DOT.

ICAO (air)

UN/ID no.

3265

Proper shipping name

CORROSIVE LIQUID, ACIDIC, ORGANIC N.O.S. (UREA HYDROCHLORIDE)

Hazard Class

8

Packing Group

III

IATA

UN/ID no.

3265

Proper shipping name

CORROSIVE LIQUID, ACIDIC, ORGANIC N.O.S. (UREA HYDROCHLORIDE)

Hazard Class

8

Packing Group

III

IMDG

UN/ID no.

3265

Proper shipping name

CORROSIVE LIQUID, ACIDIC, ORGANIC N.O.S. (UREA HYDROCHLORIDE)

Hazard Class

8

Packing Group

III

Marine pollutant

This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Manganese Chloride - 7773-01-5	1.0
Sodium dichromate - 10588-01-9	0.1

SARA 311/312 Hazard Categories

See section 2 for more information

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium dichromate 10588-01-9	10 lb	X	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sodium dichromate 10588-01-9	10 lb	-	RQ 10 lb final RQ RQ 4.54 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Hexavalent chromium - 18540-29-9	Carcinogen Developmental Female Reproductive Male Reproductive

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Water	-	-	X

7732-18-5			
Manganese Chloride 7773-01-5	X	-	X
Sodium dichromate 10588-01-9	X	X	X

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 3	Flammability 1	Reactivity 0	Physical and Chemical Properties -
HMIS	Health hazards 3	Flammability 1	Physical hazards 0	Personal protection X

Prepared By	Solomon Colors - Lab Technical Services
Issue Date	25-Oct-2018
Revision Date	09-Dec-2020
Revision Note	Periodic Review

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