

PRODUCT NAME(S): Davis Integral Color - 860

SECTION 1 – IDENTIFICATION

Manufacturer's Info: **Product name:** Davis Integral Color - 860
Rhino Linings Corporation
 9747 Businesspark Avenue
 San Diego, CA, 92131
Information phone: (858) 450 0441
Emergency contact: CHEMTREC (800) 424 9300

SECTION 2 – HAZARD(S) IDENTIFICATION

OSHA Hazard Communication Standard:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

GHS-Label Elements: **Signal Word:**
 WARNING

Pictogram(s):



Classification of the substance or mixture:

Hazard Class	Category	Hazard Statement Codes	Hazard Statements
Skin corrosion / irritation	2	H315	Causes skin irritation
Serious eye damage / Eye irritation	2B	H320	Causes eye irritation
Specific target organ toxicity, single exposure	3	H335	May cause respiratory irritation
Specific target organ toxicity, repeated exposure	2	H373	May cause lungs, liver, kidney, bladder and cardiovascular system damage through prolonged or repeated exposure by inhalation

Precautionary Statements:

Prevention: P260 Do not breathe mist/vapors/spray.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/ protective clothing / eye protection/ face protection.
 P264 Wash exposed area with plenty of water and soap thoroughly after handling.

Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P332 + P313 If skin irritation occurs: Get medical advice/attention.
 P362 Take off contaminated clothing and wash before reuse.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
 P314 Get medical advice/attention if you feel unwell.

Storage: P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.

Disposal: P501 Dispose of contents/container to hazardous or special waste collection point in accordance with local/regional/national/international regulations.

Hazards not otherwise classified: Combustible dust.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS #	EC #	Concentration, %
Chromium (III) Oxide	1308-38-9	215-160-9	60-100
C.I. Pigment Black 11	1317-61-9	215-277-5	10-30
Calcium Carbonate	1317-65-3	238-878-4	<20

SECTION 4 – FIRST-AID MEASURES

Description of First Aid measures:

- Inhalation:** Move to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory problems, seek medical attention.
- Skin:** Wash material off of the skin with plenty of soap and water. Remove contaminated clothing and shoes and wash them before reuse. Get medical advice/attention if irritation develops or persists.
- Eye:** Rinse with water for several minutes, especially under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Do not rub eyes in order to prevent corneal injury. Get medical advice/attention if eye irritation develop or persists.
- Ingestion:** Move to fresh air and keep at rest in a position comfortable for breathing. Remove dentures if any. Rinse mouth thoroughly with water and then drink 60 to 240 mL (2 to 8 oz). Get medical advice/attention if symptoms occur.

Most important symptoms/effects, acute and delayed: See Section 11 for more details.

General advice for First Aid responders: Show this SDS to physician.

Note to physician: Specific antidotes or neutralizers do not exist. Treatment should be supportive and based on the judgment of the physician in response to the reaction of the patient. Recommended medical monitoring for at least 24 hours.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: Do not use water jet.

Specific hazards arising from the chemical: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. Hazardous combustion products: carbon, iron and calcium oxides, lower molecular weight organic molecules.

Special Protective Equipment and Precautions for fire-fighters: Wear NIOSH or OSHA approved self-contained breathing apparatus in positive pressure mode with full face piece and full protective gear. Isolate the scene by removing all persons from the incident area. No action should be taken involving any personal risk or without suitable training.

Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Ensure adequate ventilation/exhaust extraction. Avoid breathing dust during clean up. Use protective equipment as described in Section 8.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater, basements or confined areas. Inform the relevant authorities if the product has caused environmental pollution. See Section 12 for more details.

Methods and materials for containment and cleaning up: Move containers from spill area. Avoid dust generation. Do not dry sweep. Use approved industrial vacuum cleaner for removal. Do not use compressed air for cleaning purposes. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Properly dispose of the waste material in accordance with existing federal, state and local regulations.

Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, see Section 1 for the Emergency contact; for further disposal measures, see Section 13.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling: Avoid generating and do not breathe dust. Do not rely on your sight to determine if dust is in the air. Use adequate ventilation and dust collection methods to keep airborne levels below the exposure limits. Maintain and test ventilation and dust collection equipment. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Take precautionary measures against static discharges. Use all available work practices to control dust exposures, such as water sprays. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment.

This product contains component that is classified as Self-heating in large quantities; may catch fire (Chromium (III) Oxide)-do not expose product to temperatures >55°C.

Wear appropriate respiratory, eye and skin protection. Avoid contact with skin and eyes. Wash hands thoroughly after handling. Hands and/or face should be washed before eating, drinking and smoking and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas.

Released: May 16, 2017

Conditions for safe storage, including any incompatibilities: Store in a dry, cool and well-ventilated area, protected from direct sunlight and away from incompatible materials (see Section 10 for details), food and drink. Keep containers tightly closed until ready for use. Protect from atmospheric moisture.

Storage stability: Stable under normal conditions.

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200. Employees and consumers should be warned of health risks associated with product use. See Section 8 for additional information on hygiene measures.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters/Occupational exposure limit values: Not available for mixture. Results for components are listed in Section 15.

Appropriate engineering controls: Good local and general ventilation and wet methods should be sufficient to control worker exposure to airborne contaminants below recommended exposure limits. Local exhaust may be required in some areas.

Personal protective equipment:

Eye/face protection:

When directly handling product, eye protection is required. Examples of eye protection include safety glasses and goggles. Contact lenses should not be worn when working with chemicals.

Skin/body protection:

Impervious gloves should be worn when working with this product. Do not rely on barrier creams in place of impervious gloves. Do not get product inside gloves. Body should be covered with appropriate clothing (apron, arm covers or full body suit) depending on the task being performed and the risks involved. Appropriate footwear should be also selected based on the task being performed and the risks involved. Wash contaminated clothing when becomes dusty.

Respiratory protection:

Use local or general ventilation to control exposures below applicable exposure limits. Use properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and assigned protection factor of the selected respirator.

Additional Protective Measures: Educate and train employees in safe handling of this product. Follow all label instructions. As a general hygiene practice, wash hands and face after use. Clean water should always be readily available for emergency skin and eye washing. Use administrative controls such job rotation to supplement engineering controls.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Brown dusty powder
Odor:	Odorless
Odor threshold:	Not available
pH:	(diluted solution): 4-8 @ 10%
Melting point/ freezing point:	<1,000°C (<1,832°F)
Initial boiling point and boiling range:	Not available
Flash point:	Not applicable
Evaporation rate:	Not applicable
Flammability (solid, gas):	Not available
Upper/ lower flammability or explosive limits:	Not available
Vapor pressure:	Not applicable
Vapor density:	Not applicable
Relative density:	Not available
Solubility (water):	Insoluble
Partition coefficient n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not applicable
Volatile organic compound	None

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: Product will not undergo hazardous polymerization. Corrosive effects to metal are not anticipated.

Chemical stability: Stable under recommended storage conditions. At temperature of ~60°C (140°F), black iron oxide will convert to Fe₂O₃ with release of heat. Yellow iron oxide will dehydrate to Fe₂O₃ at 180°C.

Conditions to avoid: Unintentional contact with moisture, generation of dust, temperatures above 55°C (131°F), open flame and sparks.

Incompatible materials: Strong oxidizing agents. Substances subject to catalytic decomposition caused by dust such as peroxides. Further avoid contact with aluminum dust, calcium hypochlorite, hydrazine, ethylene oxide, cesium, carbid, lithium, nitroalkanes, dirubidium acetylide, oxygen difluoride.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced. In fire conditions, depending on temperature, air supply and presence of other materials, decomposition products can include, but are not limited to carbon, iron and calcium oxides, lower molecular weight organic molecules.

SECTION 11 – TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin and Eye Contact, Inhalation and Ingestion.

Symptoms of exposure:

Acute toxicity:

Oral: Not anticipated, however, adverse symptoms may include abdominal pain, nausea and diarrhea.

Dermal: Adverse symptoms are not anticipated.

Inhalation: Dust may be irritating to the respiratory system. Adverse symptoms coughing and difficulties with breathing.

Skin corrosion / irritation:

May cause temporary skin irritation. Adverse symptoms may include redness.

Serious eye damage / eye irritation:

May cause eye irritation. Adverse symptoms may include tearing and redness.

Specific target organ toxicity, single exposure:

This product contains components that may cause respiratory irritation after single exposure.

- Chromium (III) Oxide, CAS #: 1308-38-9
- C.I. Pigment Black 11, CAS # 1317-661-9
- Calcium Carbonate, CAS # 1317-65-3

Aspiration hazard: Not an aspiration hazard.

Chronic toxicity:

Respiratory and Skin Sensitizer:

Not expected to cause a sensitizing effect.

Germ cell mutagenicity:

Risk to humans is not expected from exposure to this product.

Carcinogenicity:

This product does not contain components known or reported to be carcinogenic by IARC, NTP, OSHA, ACGIH.

- Chromium (III) Oxide, CAS #: 1308-38-9: IARC: Group 3 (Not Classifiable as to its Carcinogenicity to Humans)
- C.I. Pigment Black 11, CAS #: 1317-61-9: IARC: Group 3 (Not Classifiable as to its Carcinogenicity to Humans)
- Calcium Carbonate, CAS #: 1317-65-3

Reproductive toxicity:

Risk to humans is not expected from exposure to this product.

Specific target organ toxicity, repeated exposure:

Respiratory system/lungs, kidney, liver, bladder, cardiovascular system.

Repeated and prolonged exposures to iron oxide dust may cause a benign pneumoconiosis called siderosis. On X-rays it appears to be a benign pneumoconiosis and is not associated with pulmonary fibrosis or disability unless there is concurrent exposure to other fibrosis producing materials such as silica. The TLV is set to protect against siderosis. Workers should follow the recommended safety measures.

Medical conditions aggravated by overexposure:

Respiratory system/lungs, kidney, liver, bladder, cardiovascular system diseases if product is handled without adequate protection.

Toxicity test results: Not available for mixture. Results for components:

Components	Test Results
Chromium (III) Oxide, CAS #: 1308-38-9	<p><u>Acute Toxicity</u> Oral LD50 (Rat): >5,000 mg/kg; may cause gastrointestinal effects including nausea and diarrhea. Dermal LD50: No data available. Inhalation LC50: No data available. May cause respiratory tract irritation. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. The toxicological properties of this substance have not been fully investigated. Skin corrosion/irritation: May cause mechanical skin irritation. Serious eye damage/eye irritation): May cause mechanical eye irritation. STOT, SE: May cause respiratory irritation. Aspiration hazard: No</p> <p><u>Chronic toxicity</u> Sensitization, skin and respiratory: No data available. Germ cell mutagenicity: No data available. Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, OSHA and ACGIH. Reproductive toxicity: No data available. STOT, RE: Prolonged inhalation of iron oxide dust is known to produce condition known as siderosis.</p>

<p>C.I. Pigment Black 11, CAS #: 1317-61-9</p>	<p>Oral LD50 (Rat): >5,000 mg/kg; may cause gastrointestinal effects including nausea and diarrhea. Dermal LD50: No data available. Inhalation LC50: No data available. May cause respiratory tract irritation. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. The toxicological properties of this substance have not been fully investigated. Skin corrosion/irritation: May cause mechanical skin irritation. Serious eye damage/eye irritation: May cause mechanical eye irritation. STOT, SE: May cause respiratory irritation. Aspiration hazard: No <u>Chronic toxicity</u> Sensitization, skin and respiratory: No data available. Germ cell mutagenicity: No data available. Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, OSHA and ACGIH. Reproductive toxicity: No data available. STOT, RE: Prolonged inhalation of iron oxide dust is known to produce condition known as siderosis.</p>
<p>Calcium Carbonate, CAS #: 1317-65-3</p>	<p>Oral LD50 (Rat): >5,000 mg/kg; may cause gastrointestinal effects including nausea and diarrhea. Dermal LD50: No data available. Inhalation LC50: No data available. May cause respiratory tract irritation. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. The toxicological properties of this substance have not been fully investigated. Skin corrosion/irritation: May cause mechanical skin irritation. Serious eye damage/eye irritation: May cause mechanical eye irritation. STOT, SE: May cause respiratory irritation. Aspiration hazard: No <u>Chronic toxicity</u> Sensitization, skin and respiratory: No data available. Germ cell mutagenicity: No data available. Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, OSHA and ACGIH. Reproductive toxicity: No data available. STOT, RE: Prolonged inhalation of iron oxide dust is known to produce condition known as siderosis.</p>

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: Not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability: Not biodegradable.

Bioaccumulative potential: Not known.

Mobility in soil: Not known.

Other adverse effects: Not known.

Ecotoxicity test results: Not available for the mixture. Results for components, where available:

Components	Test Results
Chromium (III) Oxide, CAS #: 1308-38-9	Aquatic Toxicity: Zebra barb.LC0(96h):>10,000 mg/l Fish: Not considered toxic to fish Persistence and degradability: Inorganic substance, therefore biodegradation testing is not applicable. Bioaccumulation potential: Inorganic substance, therefore bioaccumulation testing is not applicable.
C.I. Pigment Black 11, CAS #: 1317-61-9	Aquatic Toxicity: No data. This product is not expected to be hazardous to the environment. Fish: Not considered toxic to fish Persistence and degradability: Inorganic substance, therefore biodegradation testing is not applicable. Bioaccumulation potential: Inorganic substance, therefore bioaccumulation testing is not applicable.
Calcium Carbonate, CAS #: 1317-65-3	Aquatic Toxicity: Zebra barb.LC0(96h):>10,000 mg/l Fish: Not considered toxic to fish Persistence and degradability: Inorganic substance, therefore biodegradation testing is not applicable. Bioaccumulation potential: Inorganic substance, therefore bioaccumulation testing is not applicable.

SECTION 13 – DISPOSAL CONSIDERATIONS

Product Disposal: The generation of waste should be avoided or minimized wherever possible. If product becomes a waste, it does not meet criteria of hazardous waste as defined in 40 CFR 261, Subpart C and D. Do not discharge into sewer system. Spill cleanup residues may still be subject to RCRA storage and disposal requirements. Dispose waste in compliance with local, state and federal regulations via licensed waste disposal contractor.

Container disposal: Even after emptying, container may retain residues. Do not heat or cut empty container with electric or gas torch since highly toxic vapors and gases can be formed. Empty containers should be completely drained and safely stored until appropriately reconditioned or disposed through licensed contractor in accordance with government regulations. This material and its container must be disposed of in a safe way.

SECTION 14 – TRANSPORT INFORMATION

Land transport, U.S. DOT: Non-regulated

DOT Class: Not regulated when individual shipping container is less than or equal to 25 kg. Otherwise regulated as follows:

Dot proper shipping name self-heating solid, inorganic, n.o.s.

ID Number: UN 3190

Hazard Class: 4.2 Spontaneously Combustible

Sea transport, IMDG: Non-regulated

Air transport, IATA/ICAO: Non-regulated

SECTION 15 – REGULATORY INFORMATION

U.S. Regulations:

OSHA HCS: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.

TSCA Regulations:

All components of this product are listed or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

EPCRA Section 302 (40 CFR Part 355) (Emergency Response Planning, Extremely Hazardous Substance):

No components are subject to the reporting.

EPCRA Section 304 (40 CFR Part 355) (Emergency Release Notification Requirements):

No components are subject to the reporting.

EPCRA Sections 311 & 312 (Hazardous Chemical Inventory Reporting, Hazard Categories):

Acute Health Hazard, Chronic Health Hazard

EPCRA Section 313 (40 CFR Part 372) (Toxic Chemical Release Inventory Reporting):

Chromium (III) Oxide: 0.10%

CERCLA Sections 102-103 (40 CFR Part 302) (Hazardous Substances Release Notification):

No components are subject to the reporting.

Clean Air Act:

- Ozone Depleting Substances (ODS): This product does not contain and is not manufactured with ozone depleting substances.
- Hazardous Air Pollutants, OSHA, Section 112(b), Table Z-1: The following component(s) are listed:

Substance	Regulatory Limits			Recommended Limits	
	OSHA PEL		Cal/OSHA PEL (as of 4/26/13)	NIOSH REL (as of 4/26/13)	ACGIH® 2015 TLV®
	mppcf	mg/m ³	8-hour TWA, mg/m ³	Up to 10-hour TWA, mg/m ³	8-hour TWA, mg/m ³
Chromium (III) Oxide, CAS #: 1308-38-9	-	15 (fume)	10 (fume)	10 (dust and fume)	0.5 (resp.)
C.I. Pigment Black 11, CAS #: 1317-61-9	-	10 (fume)	5 (fume)	5 (dust and fume)	5 (resp.)
Calcium Carbonate, CAS #: 1317-65-3	-	-	0.1(fume)	-	0.025 (resp.)

mppcf - millions of particles per cubic foot

Clean Water Act:

- Section 311(b): No components are subject to the reporting.

NFPA rating: Health: 1 Fire: 0 Reactivity: 0 Special: X

HMIS rating: Health: 1 Flammability: 0 Physical hazard: 0

State Regulations:

California Prop. 65 Components:

This product contains chemicals, as trace impurities and not intentionally added, known to the state of California to cause cancer (C) and birth defects or other reproductive (R) harm.

Instruction: for regulatory information on components of this mixture, check the appropriate state websites.

International Regulations/Inventories:

Canadian Regulations: All components, except Calcium Carbonate, are listed or are exempt from the DSL.

WHMIS Classification (Controlled Products Regulations): Class D2B: Material causing other toxic effects (Toxic)

WHMIS Label Information:



SECTION 16 – OTHER INFORMATION

LEGEND

GHS	Globally Harmonized System
CAS	Chemical Abstracts Services
EC	European Community
EPA	Environmental Protection Agency
OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists
NIOSH	National Institute of Occupational Safety and Health
PEL	Permissible Exposure Limits
TLV	Threshold Limit Value
REL	Recommended Exposure Limit
TWA	Time-Weighted Average

STEL	Short-term exposure limit
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
COD / BOD	Chemical Oxygen Demand / Biological Oxygen Demand
PACs / PAHs	Polycyclic Aromatic Compounds / Polycyclic Aromatic Hydrocarbon Content
STOT, SE	Specific Target Organ Toxicity following Single Exposure
STOT, RE	Specific Target Organ Toxicity following Repeated Exposure
DOT	Department of Transportation
IMDG	International maritime dangerous goods code
IATA, ICAO	International Air Transport Association, International Civil Aviation Organization
TSCA	Toxic Substances Control Act
EPCRA	Emergency Planning and Community Right-to-Know Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
RQ	Reportable Quantity
EHS	Extremely Hazardous Substances
DSL	Domestic Substance List
WHMIS	Workplace Hazardous Materials Information System

Latest revision date: March 18, 2016 – Preparation of SDS in accordance to the GHS requirements

Date of the previous revision: Not available

Disclaimer: The data set forth in this sheet are based on information provided by the suppliers of the raw materials and chemicals used in the manufacture of the aforementioned product. Rhino Linings Corporation makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereof.