



MARTRON INC. SAFETY DATA SHEET MARTRON CADMIUM 7791

Section 1: PRODUCT and COMPANY IDENTIFICATION

Product Identifier

Product Name MARTRON CADMIUM 7791
Product Number MFC-005700

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Use Refer to the *Martron Inc.* Technical Data Bulletin for this product use.
For Industrial Use Only.

Details of the Supplier

Martron Inc.
1394-A Walkup Ave
Monroe, NC 28110
704-289-1934

Website

www.martroninc.com

Emergency Number

CHEMTREC 800-424-9300

Section 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Regulation (EC) No 1272/2008

Respiratory sensitization	Category 1
Skin sensitization	Category 1
Germ Cell Mutagenicity	Category 2
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 1
Chronic aquatic toxicity	Category 2

Classification according to 67/548/EEC
Full text of R-phrases: see Section 16

Hazard Symbols

T - Toxic

R-Code(s)

Carc. cat. 1; R49 - Muta. cat. 3; R68 - Repr. cat. 2; R61 - T; R48/23 - R42/43 - R52/53

Label Elements



Signal Word

DANGER

Hazard Statements

H317 - May cause an allergic skin reaction.
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341 - Suspected of causing genetic defects.

- H350 - May cause cancer.
- H360 - May damage fertility or the unborn child.
- H372 - Causes damage to organs through prolonged or repeated exposure.
- H411 - Toxic to aquatic life with long lasting effects.
- H350i - May cause cancer by inhalation.
- H360D - May damage the unborn child.
- H350i - May cause cancer by inhalation.

Precautionary Statements - EU (§28, 1272/2008)

- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
- P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P280 - Wear eye protection/face protection.
- P321 - Specific treatment (see Section 4).
- P201 - Obtain special instructions before use.
- P281 - Use personal protective equipment as required.
- P308 + P313 - IF exposed or concerned: Get medical advice/attention.
- P202 - Do not handle until all safety precautions have been read and understood.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

Precautionary Statements

- P285 - In case of inadequate ventilation wear respiratory protection.
- P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
- P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.
- P321 - Specific treatment (see supplemental first aid instructions on this label).
- P363 - Wash contaminated clothing before reuse.
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P281 - Use personal protective equipment as required.
- P308 + P313 - IF exposed or concerned: Get medical advice/attention.
- P405 - Store locked up.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 - Wash face, hands and any exposed skin thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P314 - Get medical advice/attention if you feel unwell.
- P273 - Avoid release to the environment.
- P501 - Dispose of contents/container to an approved waste disposal plant.
- P391 - Collect spillage.

Other Hazards

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Mixture

Chemical Name	EC #	CAS #	Weight - %	Classification According to Directive 67/548/EEC or 1999/45/EC	Classification According to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Triethanolamine	Present	102-71-6	1-5	-	No data available	No data available
Isopropyl Alcohol	Present	67-63-0	1-5	F; R11 Xi; 36 R67	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)	No data available

Nickel sulfate	Present	7786-81-4	<2	Xn; R20/22 Xi; R38 R42/43 T; R48/23 Carc.Cat.1; R49 N; R50-53 Repr.Cat.2; R61 Muta.Cat.3; R68	Acute Tox. 4 (H302) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Resp. Sens. 1 H334 Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 1A (H350i) Repr. 1B (H360D) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available
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Full Text of R-Phrases See Section 16

Full Text of H- and EUH-Phrases See Section 16

Section 4: FIRST AID MEASURES

Description of First Aid Measures

General Advice

Immediate medical attention is required.

Inhalation

Remove victim to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen. Get medical attention.

Skin Contact

Immediately remove contaminated clothing and shoes. Flush skin thoroughly with cool water for at least 15 minutes. Wash skin with soap and water. Wash clothing. If irritation persists, get medical attention.

Eye Contact

Immediately flush eyes in a directed stream of water for at least 15 minutes while lifting the upper and lower eyelids intermittently to ensure complete irrigation. Get medical attention immediately.

Ingestion

If conscious and alert, rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Self-Protection of the First Aider

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most Important Symptoms and Effects, Both Acute and Delayed Symptoms

May cause irritation of respiratory tract. May cause skin irritation. Will result in severe eye irritation and possible injury.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to Physicians

Treat symptomatically.

Section 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use extinguishing material suitable for surrounding fire. Water spray, foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media

No information available.

Special Hazards Arising from the Substance or Mixture

Keep product and empty container away from heat and sources of ignition. The product causes irritation of eyes, skin and mucous membranes. If involved in a fire, product may generate irritating and toxic gases. Vapors may travel or be moved by air currents and ignited by pilot lights, other flames, sparks, heaters, static discharges or other ignition sources at locations distant from product handling point.

Advice for Firefighters

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece when fighting chemical fires. Move containers from fire area if it can be done without risk.

Section 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment and Emergency Procedures****Personal Precautions**

Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

For Emergency Responders

Use personal protection recommended in Section 8.

Environmental Precautions

Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent product from entering drains.

Methods and Material for Containment and Cleanup**Methods for Containment**

Prevent entry into waterways, sewers, basements or confined areas. Prevent further leakage or spillage if safe to do so.

Methods for Cleanup

Ventilate area. Eliminate ignition sources. Wear protective equipment. Contain spillage, then absorb spill with inert absorbent and place in a DOT-approved container for disposal. Comply with all local, state and federal regulations.

Reference to Other Sections**Other Information**

See Section 12: Ecological Information.

Section 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. Use only with adequate ventilation. Add product slowly to avoid splashing. Do not cut, drill, grind, weld or perform similar operations on or near empty containers.

General Hygiene Considerations

Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, Including Any Incompatibilities**Storage Conditions**

Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

Specific End Use(s)**Risk Management Measures**

The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Triethanolamine 102-71-6	TWA: 5 mg/m ³		
Isopropyl Alcohol 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
Nickel Sulfate 7786-81-4	TWA: 0.1 mg/m ³ Ni inhalable fraction	TWA: 1 mg/m ³ Ni (vacated) TWA: 0.1 mg/m ³ Ni	IDLH: 10 mg/m ³ Ni TWA: 0.015 mg/m ³ except Nickel carbonyl Ni

ACGIH TLV *Threshold Limit Value.*

OSHA PEL *Permissible Exposure Limit.*

NIOSH IDLH *Immediately Dangerous to Life or Health.*

Exposure Guidelines

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

Engineering Controls

Showers. Eyewash stations. A system of local and/or general exhaust is recommended to keep employee exposures below the airborne exposure limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

Personal Protective Equipment (PPE)

Eye / Face Protection

Tight sealing safety goggles. It is generally recognized that contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury.

Skin Protection

Wear chemical resistant gloves such as butyl rubber, natural rubber, neoprene or nitrile. Suitable protective clothing. Protective shoes or boots.

Respiratory Protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations

Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

Section 9: PHYSICAL and CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear, light blue-green
Odor	Slight
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks• Method</u>
pH	Approx. 8	
Melting Point/Freezing Point	Not established	
Boiling Point/Boiling Range	Not established	
Flash Point	Not established	
Evaporation Rate	Not established	

Flammability (solid, gas)	Not applicable
Flammability Limits in Air	
Upper Flammability Limit	Not established
Lower Flammability Limit	Not established
Vapor Pressure	Not established
Vapor Density	Not established
Specific Gravity	1.01 - 1.03
Water Solubility	Soluble in water
Solubility(ies)	No information available
Partition Coefficient (n-octanol/water)	Not applicable
Auto-Ignition Temperature	Not applicable
Decomposition Temperature	Not established
Kinematic Viscosity	No information available
Dynamic Viscosity	No information available
<u>Other Information</u>	
VOC Content (%)	See Section 15

Section 10: STABILITY and REACTIVITY

Reactivity

Stable at normal temperatures and pressure.

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous Polymerization

Hazardous polymerization does not occur.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Avoid storage with incompatible materials, freezing temperatures and excessive heat.

Incompatible Materials

Amines. peroxides. Acids. phenols. Strong oxidizers. Aldehydes. Halogenated compounds.

Hazardous Decomposition Products

Thermal decomposition may generate carbon monoxide, carbon dioxide, sulfur oxides and nitrogen oxides.

Section 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

Inhalation

May cause irritation of the respiratory tract. Excessive inhalation exposure may cause drowsiness, dizziness, central nervous system effects and liver and kidney effects.

Eye Contact

Will result in severe eye irritation and possible injury.

Skin Contact

This product may cause moderate irritation, redness, defatting and dermatitis.

Ingestion

Ingestion may cause discomfort or pain, nausea and possible vomiting. May cause irritation to the mouth, throat, esophagus and stomach.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Triethanolamine	4190 mg/kg (Rat)	>20 mL/kg (Rabbit) >16 mL/kg (Rat)	
Isopropyl Alcohol	4396 mg/kg (Rat)	= 12800 mg/kg (Rabbit)	= 16000 ppm (Rat) 8 h
Nickel Sulfate	275 mg/kg (Rat)		

Chronic Toxicity

Prolonged or repeated overexposure may result in liver and kidney damage. Repeated ingestion of Triethanolamine has caused kidney and liver damage in animals. Sensitization or allergic reactions (nickel itch or rash) and respiratory disorders may result from prolonged exposure to nickel compounds. Chronic exposure to nickel and nickel compounds is associated with cancer. Prolonged or repeated exposure to excessive concentrations may affect nasal cavities, lungs, liver and kidneys.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Triethanolamine		Group 3		
Isopropyl Alcohol		Group 3		X
Nickel Sulfate		Group 1	Known	X

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 - Unclassifiable as to Carcinogenicity in Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

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

X - Present

Target Organ Effects

Eyes, Lungs, Nasal Cavities, Respiratory system, Skin

Section 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Triethanolamine	216: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 169: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50	10600 - 13000: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 1000: 96 h <i>Pimephales promelas</i> mg/L LC50 static 450 - 1000: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static	1386: 24 h <i>Daphnia magna</i> mg/L EC50
Isopropyl Alcohol	1000: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50 1000: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	9640: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 11130: 96 h <i>Pimephales promelas</i> mg/L LC50 static 1400000: 96 h <i>Lepomis macrochirus</i> µg/L LC50	13299: 48 h <i>Daphnia magna</i> mg/L EC50

Nickel Sulfate	0.75: 72 h Pseudokirchneriella subcapitata mg/L EC50	2.594 - 3.279: 96 h Pimephales promelas mg/L LC50 flow-through 5.79 - 6.54: 96 h Cyprinus carpio mg/L LC50 semi-static 47.58: 96 h Cyprinus carpio mg/L LC50 static 8.6 - 13.6: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 1.28: 96 h Oncorhynchus mykiss mg/L LC50 semi- static 32.36 -41.04: 96 h Poecilia reticulata mg/L LC50 semi-static	1: 48 h Daphnia magna mg/L EC50
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Persistence and Degradability

No information available.

Bio-Accumulative Potential

Chemical Name	Partition coefficient
Triethanolamine	-2.53
Isopropyl Alcohol	0.05

Mobility in Soil

No information available.

Results of PBT and vPvB Assessment

No information available.

Other Adverse Effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Waste from Residues/Unused Products

Consult appropriate federal, state and local regulatory agencies to ascertain proper disposal procedures. Do not discharge into waterways or sewer systems. Disposal will depend on the nature of waste material.

Contaminated Packaging

Since empty containers retain product residues, all labeled hazardous precautions must be observed. Do not repackage product. Do not reuse container.

Waste Codes/Waste Designations According to EWC/AVV

Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

DOT (US)

Not regulated

IMDG

Not regulated

IATA

Not regulated

Section 15: REGULATORY INFORMATION

International Inventories

All of the components in this product are on or exempt from the following inventories: U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Japan (ENCS), China (IECSC), Korea (ECL), Philippines (PICCS), Australia (AICS)

International Inventory Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - 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	CAS #	Weight - %	SARA 313 – Threshold Values %
Isopropyl Alcohol	67-63-0	1-5	1.0
Nickel Sulfate	7786-81-4	<2	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

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
Isopropyl Alcohol				X
Nickel Sulfate	100 lb	X		X

CAA (Clean Air Act), Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act.

Chemical Name	CAS #	Weight - %	CAA (Clean Air Act), Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)	Volatile Organic Compounds (VOC) - Clean Air Act	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Triethanolamine	102-71-6	1-5		Present		
Isopropyl Alcohol	67-63-0	1-5		Present		
Nickel Sulfate	7786-81-4	<2	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)
Nickel Sulfate	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Nickel Sulfate	Carcinogen

US State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania
Triethanolamine	X	X	X
Isopropyl Alcohol	X	X	X
Nickel Sulfate	X	X	X

International Regulations

Chemical Name	Carcinogenicity	Exposure Limits
Isopropyl Alcohol		Mexico: TWA 400 ppm Mexico: TWA 980 mg/m ³ Mexico: STEL 500 ppm Mexico: STEL 1225 mg/m ³
Nickel Sulfate		Mexico: TWA 0.1 mg/m ³ Mexico: STEL 0.3 mg/m ³

CANADA

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the Safety Data Sheet (SDS) contains all the information required by the CPR.

Chemical Name	NPRI
Isopropyl Alcohol	X

International Inventory Legend

NPRI - National Pollutant Release Inventory.

Section 16: OTHER INFORMATION

Full Text of R-Phrases Referred to Under Sections 2 and 3

- R11 - Highly flammable.
- R67 - Vapors may cause drowsiness and dizziness.
- R36 - Irritating to eyes.
- R49 - May cause cancer by inhalation.
- R68 - Possible risk of irreversible effects.
- R61 - May cause harm to the unborn child.
- R38 - Irritating to skin.
- R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R42/43 - May cause sensitization by inhalation and skin contact.
- R48/23 - Toxic: danger of serious damage to health by prolonged exposure through inhalation.
- R20/22 - Harmful by inhalation and if swallowed.
- R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full Text of H-Statements Referred to Under Sections 2 and 3

- H319 - Causes serious eye irritation.
- H336 - May cause drowsiness or dizziness.
- H302 - Harmful if swallowed.
- H332 - Harmful if inhaled.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H341 - Suspected of causing genetic defects if inhaled.
- H360D - May damage the unborn child.
- H372 - Causes damage to organs through prolonged or repeated exposure if inhaled.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.

Issue Date	12-Nov-2014
Revision Date	Not Applicable
Revision Note	Not Applicable.

This Safety Data Sheet (SDS) complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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