

CI-10 DLC®-A

1: Identification

Product identifier:	CI-10 DLC®-A
Other means of identification:	Hydrocarbon resin on silicon dioxide
Supplier:	 NATROCHEM, Inc. P.O. Box 1205 Savannah, GA 31402-1205 912-236-4464
Recommended use:	Adhesives, coatings, rubber
Restrictions on use:	Not applicable.
Emergency phone number:	CHEMTREC (USA) 800-424-9300 CHEMTREC (Int'l) 202-483-7616

2: Hazard(s) identification

GHS classification:	Specific target organ toxicity - Single exposure – Category 3 Specific target organ toxicity - Repeated exposure – Category 2 Aspiration hazard – Category 1
----------------------------	--

GHS label elements

Signal word:	DANGER
Symbol(s):	



Hazard statements:	May be fatal if swallowed and enters airways May cause respiratory irritation May cause drowsiness or dizziness May cause damage to skin through prolonged or repeated exposure May form combustible dust concentrations in the air.
Hazards not otherwise classified:	

Precautionary statements:

Prevention:	Do not breathe dust/fumes/mist/vapours. Use only outdoors or in a well-ventilated area. Wear protective gloves/clothing and eye/face protection.
Response:	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. In case of fire: Use appropriate media to extinguish.
Storage:	Store in a dry place. Store in a closed container. Store in a well ventilated place. Keep container tightly closed.
Disposal:	Dispose of contents/container in accordance with

local/regional/national/international regulations.

3: Composition

Substance/mixture: Mixture

Ingredient	Synonyms	CAS number	Concentration (%)
Coumarone-indene resin		63393-89-5	Trade secret
Naphtha, petroleum, arom.-contg.		68603-08-7	Trade secret
Silica, amorphous, precipitated, and gel		112926-00-8	26-30

Contains no detectable crystalline silica (detection limit <0.01% by weight)

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Contaminants: Naphthalene (91-20-3) is contained in some of the component raw materials as a non-reactive unintentional material. It has a relatively high boiling point (218°C) and a great affinity for petroleum hydrocarbons and thus is very difficult to remove completely from the resins.
The component material typically contains less than 500 ppm of naphthalene.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

4: First-aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM, OR PHYSICIAN immediately; have SDS information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce

vomiting.

Most important symptoms/effects, acute and delayed.

Potential acute health effects

Eye contact: Mild irritation.
Inhalation: Respiratory tract irritation.
Skin contact: Prolonged or repeated contact may dry skin and cause irritation.
Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:
Irritation
Redness
Inhalation: Adverse symptoms may include the following:
Coughing
Respiratory tract irritation
Skin contact: Adverse symptoms may include the following:
Dryness
Ingestion: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Dry chemical, carbon dioxide, foam, water spray.
Unsuitable extinguishing media: Do not use high-pressure water streams.

Specific hazards arising from the chemical: Avoid generating vapours; vapours dispersed in air in sufficient concentrations and in the presence of an ignition source are a potential explosion hazard. Vapours are heavier than air and can collect in low areas; vapours can travel to an ignition source and flash back.

Hazardous thermal decomposition products: Upon combustion, this product emits carbon monoxide carbon dioxide, and/or low molecular weight hydrocarbons.

Special protective actions for firefighters: Keep away from sources of ignition. Avoid inhalation of material or combustion by-products. Move material from fire area if it can be done without risk. Use extinguishing agents appropriate for surrounding fire. Dike for later disposal. Stay upwind and keep out of low areas.

Special protective equipment for firefighters: Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure.

6: Accidental release measures

Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Product forms slippery surface when combined with water.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in **Section 8** on suitable and unsuitable materials. See also the information immediately above in “For non-emergency personnel”.

Environmental precautions: Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up

Small spill: Vacuum or sweep up material and place in a designated, labeled waste container.

Large spill: Vacuum or sweep up material and place in a designated, labeled waste container.

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

7: Handling and storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see **Section 8**).

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. When transferring material into flammable solvents, use proper grounding to avoid electrical sparks. Avoid alteration of product properties before use. Calcining (which may result in crystalline silica formation) or mixing with additives may alter toxicological properties. See also **Section 8** for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool, and well-ventilated area away from incompatible materials (see **Section 10**) and food and drink. Keep container tightly closed and sealed until ready for use. Do not store in unlabeled containers.

Incompatibilities: Strong oxidizing materials, combustible materials

8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

Components with limit values that require monitoring at the workplace:	
Naphthalene (91-20-3)	
ACGIH	10 ppm TWA 15 ppm STEL Skin – potential significant contribution to overall exposure by the cutaneous route
NIOSH	10 ppm TWA; 50 mg/m ³ TWA 15 ppm STEL; 75 mg/m ³ STEL 250 ppm IDLH
OSHA (US)	10 ppm TWA; 50 mg/m ³ TWA
Europe	10 ppm TWA; 50 mg/m ³ TWA
Mexico	10 ppm TWA LMPE-PPT; 50 mg/m ³ TWA LMPE-PPT 15 ppm STEL [LMPE-CT]; 75 mg/m ³ STEL [LMPE-CT]

Recommended monitoring procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere, or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Appropriate engineering controls:

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure that they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters, or engineering modifications to process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures:

Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory, and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: splash goggles.

Skin protection

Hand protection:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. When handling hot material, wear heat-resistant gloves that are able to withstand the temperature of molten product.

Body protection:

Personal protective equipment for the body should be selected

Other skin protection:

based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection:

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

9: Physical and chemical properties

Appearance

Physical state:	Powder, solid, or granular solid.
Color:	White to tan.
Odor:	Petroleum odor.
Odor threshold:	Not available.
pH:	Not available.
Melting/freezing point:	Not available.
Boiling point and range:	Not available.
Flash point:	>330°F
Evaporation rate:	Not available.
Flammability:	Not available.
Flammability or explosive limits:	Not available.
Vapor pressure:	Not available.
Vapor density:	Not available.
Relative density:	Not available.
Solubility:	Not available.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	Not applicable.

10: Stability and reactivity

Reactivity:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability:	This product is stable.
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid:	High temperature (>800°C) treatment (calcining). Avoid alteration of

product properties before use. Calcining (which may result in crystalline silica formation) or mixing with additives may alter toxicological properties.

Avoid generating dust.

Refer to protective measures listed in **Sections 7 and 8**.

Incompatible materials:

Reactive or incompatible with the following materials: acids, oxidizing materials, strong alkalis.

Hazardous decomposition products:

Upon decomposition, this product emits carbon monoxide, carbon dioxide, and/or low molecular weight hydrocarbons.

11: Toxicological information

Information on toxicological effects

Acute toxicity

Naphthalene	LC50 inhalation	Rat	>340 mg/kg	-
	LD50 oral	Rat	1110 mg/kg	-
	LD50 dermal	Rabbit	1120 mg/kg	-

Irritation/corrosion

Conclusion/summary

Skin: No known significant effects or critical hazards.

Eyes: No known significant effects or critical hazards.

Respiratory: No known significant effects or critical hazards.

Sensitization

Conclusion/summary:

Skin: No known significant effects or critical hazards.

Respiratory: No known significant effects or critical hazards.

Mutagenicity:

Conclusion/summary: No known significant effects or critical hazards.

Carcinogenicity

Conclusion/summary: No known significant effects or critical hazards.

Classification

Ingredient	OSHA	IARC	NTP
Silica, amorphous, precipitated, and gel	-	3	-
Naphthalene	+	2B	Reasonably anticipated to be a human carcinogen

Carcinogen classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: [Known/Reasonably anticipated] to be a human carcinogen

OSHA: +

Not listed/regulated: -

Reproductive toxicity

Conclusion/summary: No known significant effects or critical hazards.

Teratogenicity

Conclusion/summary: No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Skin: May cause damage to skin through repeated or prolonged exposure.

Target organs

Contains material which may cause damage to the following organs: upper respiratory tract, eyes.

Aspiration hazard

May be fatal if swallowed and enters airways.

Information on the likely routes of exposure: Routes of entry anticipated: oral, dermal, inhalation.

Potential acute health effects

Eye contact: No significant irritation expected other than possible mechanical irritation.

Inhalation: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat, and lungs. May cause drowsiness and dizziness.

Skin contact: Prolonged or repeated contact may damage skin.

Ingestion: May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical, and toxicological characteristics

Eye contact: Adverse symptoms may include the following:
Irritation
Redness

Inhalation: Adverse symptoms may include the following:
Coughing
Respiratory tract irritation

Skin contact: Adverse symptoms may include the following:
Dryness

Ingestion: No specific data.

Delayed and immediate effects and also chronic effects from short- and long-term exposure

Conclusion/summary: An epidemiological study was conducted which included 165 precipitated silica workers who had been exposed an average time of 8.6 years. Of these 165 workers, 44 had been exposed for an average of 18 years. No adverse effects were noted in complete medical examinations (including chest roentgenograms) of these workers. Pulmonary function decrements were correlated only with smoking and age but not with the degree or duration of dust exposures. Laboratory studies have also been conducted in small animals via inhalation of levels of precipitated silica dust of up to 126 mg/m³ per periods from six months to two years. Although precipitated silica was temporarily deposited in animals' lungs, most of the deposited material was cleared soon after the dust exposure ended. The results of all studies performed by, or known to, PPG indicated a very low order of pulmonary activity for synthetic precipitated silicas. PPG recommends that persons with breathing problems or lung disease should not work in dusty areas unless a physician approves and certifies their fitness to wear respiratory protection.

Short-term exposure

Potential immediate effects Symptoms/effects may include mild skin irritation, mild eye irritation, nervous system damage, respiratory tract irritation, and aspiration hazard.

Potential delayed effects Prolonged or repeated contact may dry skin and cause irritation.

Long-term exposure

Potential immediate effects

Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Potential delayed effects

Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. May cause damage to skin through prolonged or repeated exposure.

Potential chronic health effects

General:

No known significant effects or critical hazards.

Carcinogenicity:

Mutagenicity:

No known significant effects or critical hazards.

Teratogenicity:

No known significant effects or critical hazards.

Developmental effects:

No known significant effects or critical hazards.

Fertility effects:

No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

12: Ecological information

Toxicity

Ingredient	Result	Species	Exposure
Silica, amorphous, precipitated, and gel	NOEC > 1000 ppm	Daphnia – <i>daphnia magna</i>	24 hours
	Acute NOEC > 10000 ppm fresh water	Fish	96 hours static
	Acute NOEC > 10000 ppm	Fish – <i>brachydanio rerio</i>	4 days static
Naphthalene	LC50 5.74-6.44 mg/L flow-through	Fish – <i>pimephales promelas</i>	96 hours
	LC50 1.6 mg/L flow-through	Fish – <i>oncorhyncus mykiss</i>	96 hours
	LC50 0.91-2.82 mg/L static	Fish – <i>oncorhyncus mykiss</i>	96 hours
	LC50 1.99 mg/L static	Fish – <i>pimephales promelas</i>	96 hours
	LC50 31.0265 mg/L static	Fish – <i>lepomis macrochirus</i>	96 hours
	EC50 0.4 mg/L	Algae – <i>skeletonema costatum</i>	72 hours
	EC50 2.16 mg/L IUCLID	Daphnia – <i>daphnia magna</i>	48 hours
	EC50 1.96 mg/L flow-through EPA	Daphnia – <i>daphnia magna</i>	48 hours
EC50 1.09-3.4 mg/L static EPA	Daphnia – <i>daphnia magna</i>	48 hours	

Persistence and degradability

Ingredient	Aquatic half-life	Photolysis	Biodegradability
Silica, amorphous, precipitated, and gel	-	-	Not readily

Bioaccumulative potential

Ingredient	LogP _{ow}	BCF	Potential
Silica, amorphous,	-	0	low

precipitated, and gel			
-----------------------	--	--	--

Mobility in soil

Soil/water partition coefficient (K_{oc}): Not available.

Other adverse effects: No known significant effects or critical hazards.

13: Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions, and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

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

Refer to Sections 6, 7, and 8 for additional information on accidental release measures, handling and storage, and exposure controls.

14: Transport information

	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Additional information	-	-	-

Special precautions for user: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not available.

15: Regulatory information

Inventory status

United States inventory (TSCA 8b): All components are listed or exempted.

Australia inventory (AICS): All components are listed or exempted.

Canada inventory (DSL):	All components are listed or exempted.
Europe inventory (REACH):	All components are listed or exempted.
Korea inventory (KECI):	All components are listed or exempted.
New Zealand inventory (NZIoC):	All components are listed or exempted.

16: Other information

Hazardous Material Identification System (USA)

HEALTH	2
FLAMMABILITY	1
REACTIVITY	0

PERSONAL PROTECTION

* - chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1901.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J.J.Keller 800-327-6868.

The customer is responsible for determining the PPE code for this material.

Key to abbreviations:	ATE	Acute toxicity estimate
	BCF	Bioconcentration factor
	GHS	Globally harmonized system of classification and labeling of chemicals
	IATA	International Air Transport Association
	IBC	Intermediate bulk container
	IMDG	International Maritime Dangerous Goods
	LogPow	Logarithm of the octanol/water partition coefficient
	MARPOL 73/78	International convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978. (MARPOL = marine pollution)
	UN	United Nations

Disclaimer:

The information and recommendations contained herein are based upon data that are believed to be accurate and reliable. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control, Natrochem, Inc. makes no warranty express or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon.

Application and performance information are provided only as a guide, since the conditions of use are beyond the control of Natrochem, Inc. Consequently, Natrochem makes no warranties, express or implied, with respect to the goods or use of the goods or the performance of the goods and makes no

warranties of fitness for a particular purpose for merchantability. Buyer acknowledges that Natrochem will not be liable for consequential, incidental, direct or special damages arising directly or indirectly in respect to such goods or the use or failure thereof, whether based on breach of warranty, negligence, strict liability in tort or otherwise.