

# MATERIAL SAFETY DATA SHEET

**PART I** *What is the material and what do I need to know in an emergency?*

**1. Product Identification**

Trade Name (As Labeled): PART# 151822 Quick Dry Brake Cleaner

Manufacturer's Name: Industrial Chemicals Corporation

Address: 4711 W. 58<sup>th</sup> Avenue  
Arvada, CO 80002

Emergency Phone: 1-800-424-9300 (CHEMTREC)

Business Phone: 1-303-427-2727

Date of Preparation: 08-Jan-02

**2. Composition and Information on Ingredients**

Chemical Name:	Cas #:	% W/W	Exposure Limits In Air					
			ACGIH		OSHA			OTHER
			TLV ppm	STEL ppm	PEL ppm	STEL ppm	IDLH ppm	
n-Hexane	110-54-3	70-80	50	NE	500	NE	1100	
other Hexane Isomers	N/A	<20	100	NE	500	NE	NE	
Methanol	67-56-1	1-5	200	250	200	250	6000	
Isopropyl Alcohol	67-63-0	5-15	400	500	400	500	2000	

NE = Not Established

CL = Ceiling Level See Section 16 for Definitions of Terms Used.

## PART I, CONT.

### 3. Hazard Identification

**Emergency Overview:** This clear, colorless liquid with odors of alcohol and hydrocarbon is flammable and toxic. Responders must protect against possible inhalation, ingestion and contact exposure. Fire protection must be available to prevent or rapidly extinguish a fire.

**Signs and Symptoms:** Effects of overexposure may include eye and skin irritation, irritation of the nose and throat, central nervous system effects including dizziness, headache, drowsiness, loss of coordination, fatigue, giddiness, loss of appetite and abdominal pain. Symptoms of ingestion include irritation of digestive tract, nausea, vomiting and diarrhea.

**Inhalation:** Overexposure to vapors may produce central nervous system depression, causing narcosis. Inhalation of this material may lead to irritation of the nose and throat. Symptoms of overexposure may include fatigue, confusion, headache, dizziness, and drowsiness. Exposure to high concentrations of this material vapor may cause unconsciousness or death.

**Primary Routes of Entry:** Inhalation, skin contact, eyes, ingestion

**Contact With Skin or Eyes:** May cause moderate to severe skin irritation. Contact may cause redness and burning of the skin. Prolonged or repeated contact may cause drying and cracking of the skin, burns, and dermatitis. Not expected to be hazardous by skin absorption. May cause mild to moderate eye irritation. Contact may cause stinging, watering, redness and swelling.

**Skin Absorption:** Isopropyl Alcohol is absorbed through the skin and may result in effects similar to inhalation exposure.

**Ingestion:** Ingestion of small quantities of Isopropyl Alcohol or Methanol can cause irreversible damage to the nervous system, or death. It cannot be made non-poisonous. Aspiration of the material into the lungs can cause chemical pneumonitis.

Hazardous Material Information System	
Health (Blue)	2
Flammability (Red)	3
Reactivity (Yellow)	0
Protective Equipment	
Eyes	Eye Protection
Respiratory	See Section 8
Hands	Nitrile Or Butyl Gloves
Body	Protective Apron

**PART II** *What should I do if a hazardous situation occurs?*

**4. First-Aid Measures**

Skin Exposure: If spilled on skin, immediately begin decontamination with running water, for at least 15 minutes. Remove exposed or contaminated clothing, taking care not to contaminate eyes. If skin surface is damaged, seek medical attention. If skin surface is not damaged, cleanse affected area thoroughly by washing with mild soap and water. If irritation or redness develops, seek medical attention.

Eye Exposure: If chemical is splashed in eyes, open victim's eyes while under gentle running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Seek medical attention.

Inhalation: If respiratory or other symptoms develop, move the victim away from the source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Ingestion: If chemical is swallowed, Call Physician Or Poison Control Center For Most Current Information. Isopropyl Alcohol ingestion is life threatening – drink two glasses of water and induce vomiting, following emesis with drinking two teaspoons of baking soda in water. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow.

Note to Physicians: Exposure to high concentrations of this material (e.g. in enclosed spaces or deliberate abuse) may be associated with cardiac arrhythmias. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. Other drugs with less arrhythmogenic potential should be considered. If sympathomimetic drugs are administered, observe for the development of cardiac arrhythmias.

Victims Of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS with victim to health professional.

**5. Fire-Fighting Measures**

<u>Flash Point, °C (closed cup):</u>	-26 °C (-15 °F) (lowest component)
<u>Autoignition Temperature, °C:</u>	Not reported
<u>Flammable Limits (in air by volume, %):</u>	<u>Lower:</u> 1.0 (widest range of components) <u>Upper:</u> 36.5 (widest range of components)

## PART II, CONT.

### 5. Fire-Fighting Measures, Cont.

Fire Extinguishing Materials: Quick Dry Brake Cleaner is a flammable liquid which is a very dangerous fire hazard when exposed to heat, flames, and oxidizing materials. Dry chemical, carbon dioxide or foam is recommended. Water spray is recommended to cool or protect exposed containers, materials or structures. Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters.

Water Spray: OK  
Foam: OK

Carbon Dioxide: OK  
Dry Chemical: OK

Other: "B" type  
Halon: OK

NFPA Ranking	
Flammability	3
Health	2
Reactivity	0
Other	

Special Fire Fighting Procedures: Incipient fire responders should wear eye protection. Structural fire fighters must wear Self-Contained Breathing Apparatus and full protective equipment.

Unusual Fire And Explosion Hazards: When heated to decomposition, Quick Dry Brake Cleaner will emit acrid smoke and irritating fumes. Quick Dry Brake Cleaner vapors are heavier than air and may travel long distances on the ground to a source of ignition and flash back.

Explosion Sensitivity to Mechanical Impact: Not sensitive.

Explosion sensitivity to Static Discharge: Vapors may be ignited by static electrical sparks.

### 6. Accidental Release Measures

Spill And Leak Response: Keep all sources of ignition and hot metal surfaces away from spill. The use of explosion-proof equipment is recommended. Stay upwind and away from spill. Isolate the danger area and keep unauthorized personnel out. Stop spill if it can be done with minimal risk. **Wear appropriate protective equipment including respiratory protection as conditions warrant.** Prevent spilled material from entering sewers, storm drains and natural waterways. Dike far ahead of the spill for later recovery. Use foam on spills to minimize vapors and potential for fire. Small spills may be absorbed into absorbent material suitable for hydrocarbon liquids. Notify fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center at 1-800-424-8802. If spill in excess of the EPA reportable quantity is released off-site to air, water or land, immediately notify the National Response Center are 1-800-424-8802.

### PART III

*How can I prevent hazardous situations from occurring?*

## 7. Handling and Storage

Work Practices and Hygiene Practices: Avoid getting chemicals ON YOU or IN YOU. Wash hands after handling chemicals. Do not eat or drink while handling chemicals. Follow SPECIFIC USE INSTRUCTIONS supplied with product.

Storage and Handling Practices: Store product in properly labeled, closed containers in cool location, away from direct sunlight, hot metal surfaces or sources of ignition. Post area "No Smoking or Open Flames." Store only in approved containers. Vapors may exist in "empty" containers of Quick Dry Brake Cleaner, which could ignite and explode if in contact with a source of ignition. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in accordance to government regulations. Open containers slowly to relieve any pressure. Bond and ground all equipment when transferring from one vessel or container to another. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

Protective Practices During Maintenance of Contaminated Equipment: Follow practices indicated above. Make certain application equipment is locked and tagged-out safely. Always use Quick Dry Brake Cleaner in areas where adequate ventilation is provided. Decontaminate equipment, according to the procedures under the "Accidental Release Measures" section before maintenance begins. Collect all rinsates and dispose of according to applicable local, State, or Federal procedures.

## 8. Exposure Controls - Personal Protection

Consult with a health/safety professional for specific selection.

Ventilation and Engineering Controls: Use with adequate ventilation. Use a mechanical fan or vent area to outside. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge may be used under conditions where airborne concentrations are expected to exceed exposure guidelines. Protection provided by air purifying respirators is limited. Refer to respirator manufacturer's selection guide for appropriate respirator for conditions encountered. If in doubt, seek the advice of an industrial hygienist or safety professional for appropriate air purifying respiratory equipment. Use positive pressure air supplied respirator if there is potential for an uncontrolled release, exposure levels are not known, or in any other circumstances where air purifying respirators may not provide adequate protection. Respiratory protection does not provide safety from flammable atmospheres. Do not enter concentrations of vapors at, near, or above the Lower Flammability Limit.

Respiratory Protection: Maintain airborne contaminant concentrations below guidelines listed in Section 2. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, or applicable State regulations. Use supplied air respiration protection if oxygen levels are below 19.5%. Use Self-Contained Breathing Apparatus during release response procedures.

## PART III, CONT.

### 8. Exposure Controls - Personal Protection, Cont.

Eye Protection: Splash goggles or safety glasses with side shields. Hard hats and face shields may be worn where splashing is likely to occur.

Hand Protection: Use nitrile or butyl gloves. Check gloves for leaks. Triple-glove during emergency response procedures from natural rubber are generally acceptable, depending upon the task. Wash hands after removing gloves.

Body Protection: Use body protection appropriate for task. Coveralls, rubber aprons, or chemical protective clothing made from natural rubber are generally acceptable, depending upon the task.

### 9. Physical and Chemical Properties

Vapor Density (Air=1):	>2
Evaporation Rate (n-BuAc=1):	>2
Specific Gravity:	0.69
Boiling Point Range	65 - 83°C (149 - 181°F)
Solubility in Water @ 20 °C:	Partial
Vapor Pressure, mmHg @ 20 °C:	130 (most volatile component)
Volatile Organic Compounds (VOC)	100%

Appearance and Color: Clear, colorless solution with odors of alcohol and hydrocarbon.

How To Detect Quick Dry Brake Cleaner (warning properties): There are no unusual warning properties associated with Quick Dry Brake Cleaner.

### 10. Stability And Reactivity

Stability: Stable.

Conditions to Avoid: All possible sources of ignition.

Materials with Which Substance is Incompatible: This substance is not compatible with strong oxidizing and reducing agents.

Hazardous Polymerization: Will not occur.

## PART IV

*Is there any other useful information about this material?*

### 11. Toxicological Information

Toxicity Data: The following information is for Hexane (RTECS #: MN9275000)

LD50 - DER RAB: >2 g/Kg.  
LD50 - IHL RAT: >3367 ppm.  
LD50 - ORL RAT: >5 gm/Kg.

Toxicity Data: The following information is for Isopropyl Alcohol (RTECS #: NT8050000)

orl-rat LD50: 5045 mg/Kg.  
ihl-rat LCLo: 16,000 ppm/4H  
orl-hmn TDLo: 223 mg/Kg  
orl-hmn LDLo: 3570 mg/Kg: CNS, PUL, GIT  
ihl-mus LCLo: 12800 ppm/8H  
orl-mus LD50: 3600 mg/Kg.  
lpr-mus LD50: 4477 mg/Kg.

Toxicity Data: The following information is for Methanol (RTECS #: PC1400000)

orl-rat LD50: 5,628 mg/Kg.  
ihl-rat LC50: 64,000 ppm/4H  
orl-hmn LDLo: 143 mg/Kg: EYE, PUL, GIT  
orl-hmn LDLo: 428 mg/Kg: CNS, PUL  
ihl-hmn TCLo: 300 ppm: EYE, CNS, PUL  
orl-mus LD50: 7300 mg/Kg.  
lpr-mus LD50: 10,765 mg/Kg.  
scu-mus LD50: 9800 mg/Kg.  
ivn-mus LD50: 4710 mg/Kg.

SUSPECTED CANCER AGENT: Quick Dry Brake Cleaner's ingredients are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, CAL/OSHA.

Medical Conditions Aggravated by Exposure: Skin contact may aggravate pre-existing dermatitis. Individuals with impaired liver or kidney functions may be more susceptible to the effects of Quick Dry Brake Cleaner.

Dermal Exposure:	Irritation of skin tissue.
Ingestion Exposure:	Stomach pains, dizziness, drowsiness.
Inhalation Exposure:	Dizziness, drowsiness, confusion.

Irritancy of Product: Quick Dry Brake Cleaner can be irritating to contaminated tissue, especially after prolonged contact.

## PART IV, CONT.

### 11. Toxicological Information, Cont.

Reproductive Toxicity Information: Listed below is information concerning the effects of Hexanes and its components on the human reproductive system.

Mutagenicity: (a chemical that causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines.) Hexanes is not reported to cause mutagenic effects in animals.

Teratogenicity: (a chemical that causes damage to a developing fetus, but the damage does not propagate across generational lines.) Hexanes is not reported to cause teratogenic effects in animals.

Reproductive Toxicity: (any substance that interferes in any way with the reproductive process). Hexanes is not reported to cause reproductive toxicity effects in animals.

Reproductive Toxicity Information: Listed below is information concerning the effects of Isopropyl Alcohol and its components on the human reproductive system.

Mutagenicity: (a chemical that causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines.) Isopropyl Alcohol has been reported to cause mutagenic effects in animals.

Teratogenicity: (a chemical that causes damage to a developing fetus, but the damage does not propagate across generational lines.) Isopropyl Alcohol has been reported to cause teratogenic effects in animals.

Reproductive Toxicity: (any substance that interferes in any way with the reproductive process). Isopropyl Alcohol has been reported to cause reproductive toxicity effects in animals.

### 12. Ecological Information

For ecological information on components of this product, users should refer to the Hazardous Substances Data Bank maintained by the U.S. National Library of Medicine. Major components include hexanes and isopropanol.

Environmental Stability: Quick Dry Brake Cleaner will biodegrade slowly in the environment, will not hydrolyze in soil or water under normal environmental conditions. All work practices should be aimed at eliminating environmental contamination.

Effect of Material on Plants or Animals: Animal studies (namely on mice, rabbits, rats) indicate that Quick Dry Brake Cleaner is moderately toxic by ingestion, inhalation, intravenous, and subcutaneous routes. Effect of Chemical on Aquatic Life: High concentrations of Quick Dry Brake Cleaner solutions may be detrimental to aquatic life. Biodegradation in water can be slow, and at high concentrations, Quick Dry Brake Cleaner can be toxic to microorganisms.



### 13. Disposal Considerations

This material, if discarded as produced, would be a RCRA "characteristic" hazardous waste due to the characteristics of D001 and D018 (or F005 if spent). Treatment, storage, transportation and disposal must be in accordance with applicable federal, state and local regulations. It is the responsibility of the user to determine the proper treatment, storage transportation and disposal methods for specific waste streams. Contact the RCRA/ Superfund Hotline at 1-800-424-9346 or your regional U.S. EPA office for guidance concerning case-specific disposal issues.

### 14. Transportation Information

This material is hazardous as defined by 49 CFR 172.101 by the U.S. Department of Transportation

<u>Proper Shipping Name:</u>	Flammable Liquid N.O.S. (contains Hexane and Isopropanol)
<u>Hazard Class Number and Description:</u>	3 (Flammable Liquid)
<u>UN Identification Number:</u>	UN 1993
<u>Packing Group:</u>	II
<u>DOT Label(s) Required:</u>	Flammable Liquid
<u>DOT Emergency Response Guide</u>	127
RQ	5000 Pounds Methanol, 5000 Pounds Hexane

Transport Canada Transportation Of Dangerous Goods Regulations: This Material Is Considered As Dangerous Goods. Use the above information for the preparation of Canadian Shipments.

### 15. Regulatory Information

SARA Section 313-Toxic Chemicals: This material contains the following chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372: Methanol and n-Hexane.

SARA Section 311/312 Hazard Categories: This product meets the criteria of the following Hazard Categories as defined by 40 CFR Part 370 as established by Sections 311 and 312 of SARA: Acute, Chronic and Fire.

SARA Section 302 Extremely Hazardous Substances: This product is not known to contain any chemical components in concentrations greater than one percent that are listed as Extremely Hazardous Substances in 40 CFR part 355 as established by section 302 of SARA.

CERCLA Hazardous Substances: This material contains the following chemicals identified as Hazardous Substances in 40 CFR Part 302 as required by Section 102(a) of CERCLA: Methanol (RQ =5000 lb) and n-Hexane (RQ = 5000 lb). As defined in CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance.

## PART IV, CONT.

### 15. Regulatory Information, cont.

Clean Water Act (CWA): Pursuant to Section 311(b)(4) of the CWA, discharges of petroleum products in any kind to surface waters must be immediately reported to the National Response Center at 1-800-424-8802.

California Proposition 65: WARNING: This material contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5): None.

US EPE TSCA Inventory: This material or its components are listed on the TSCA Inventory.

### 16. Other Information

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and protection of the environment.

#### Definitions Of Terms:

A large number of abbreviations and acronyms appear on a MSDS. Some of these which are commonly used include the following:

**CAS #**: This is the Chemical Abstract Service Number which uniquely identifies each constituent. It is used for computer-related searching.

#### **Exposure Limits In Air:**

**ACGIH** - American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits.

**TLV** - Threshold Limit Value - an airborne concentration of a substance which represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour Time Weighted Average (TWA), the 15-minute Short Term Exposure Limit, and the instantaneous Ceiling Level. Skin adsorption effects must also be considered.

**OSHA** - U.S. Occupational Safety and Health Administration.

**PEL** - Permissible Exposure Limit - this exposure value means exactly the same as a TLV, except that it is enforceable by OSHA.

**DFG - MAK** - The Republic of Germany's Maximum Exposure Level, similar to the U.S. PEL.

## PART IV, CONT.

### 16. Other Information, Cont.

**IDLH** - Immediately Dangerous to Life and Health level represents a concentration from which one can escape within 30-minutes without suffering escape-preventing or permanent injury.

**NIOSH** - The National Institute of Occupational Safety and Health, which is the research arm of the U.S. Occupational Safety and Health Administration (OSHA). NIOSH issues exposure guidelines called Recommended Exposure Levels (REL's). When no exposure guidelines are established, an entry of NE is made for reference.

**FLAMMABILITY LIMITS IN AIR:** Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA).

**LEL** - The lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

**UEL** - The highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

Toxicological Information: Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are:

**LD<sub>50</sub>** - Lethal Dose (solids & liquids) which kills 50% of the exposed animals;

**LC<sub>50</sub>** - Lethal Concentration (gases) which kills 50% of the exposed animals; ppm concentration expressed in parts of material per million parts of air or water; mg/m<sup>3</sup> concentration expressed in weight of substance per volume of air; mg/kg quantity of material, by weight, administered to a test subject, based on their body weight in kg.

**TDLo** - The lowest dose to cause a symptom

**TDo, LDLo, and LDo** - The lowest dose to cause death.

Regulatory Information:

**EPA** - U.S. Environmental Protection Agency.

**WHMIS** - Canadian Workplace Hazard information System.

**DOT** - U.S. Department of Transportation

**CTC** - Canadian Transportation Commission

**SARA** - Superfund Amendments and Reauthorization Act

**TSCA** - Toxic Substance Control Act

**Proposition 65** - California's Safe Drinking Water Act

**CERCLA or Superfund** - Comprehensive Environmental Response, Compensation, and Liability Act