

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** BRAKE JOB 2000  
**Recommended use** Solvent degreaser  
**Information on Manufacturer**  
 CHEMSEARCH DIV. OF NCH CORP.  
 BOX 152170  
 IRVING, TX 75015

**Product Code** 0688  
**Chemical nature** Solvent mixture  
**Emergency Telephone Number**  
 CHEMTREC 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

**Emergency Overview****WARNING**

Harmful if inhaled  
 Severe skin irritation  
 Severe eye irritation  
 May cause allergic skin reaction  
 May be harmful if swallowed

**Color** Colorless**Physical State** Liquid**Odor** Chlorine Solvent**Potential Health Effects****Principle Route of Exposure**

Skin contact, Eye contact, Inhalation.

**Primary Routes of Entry**

Inhalation, Ingestion, Skin Absorption.

**Acute Effects****Eyes**

Severe irritation.

**Skin**

Severe irritation. May be absorbed through the skin in harmful amounts. May cause allergic skin reaction.

**Inhalation**

Causes respiratory tract irritation. Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Blood disorder may occur after prolonged inhalation.

**Ingestion**

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause central nervous system effects such as headache, dizziness, weakness, staggering gait, nausea, blurred vision, excitation, and in extreme cases, coma or death. Aspiration hazard if swallowed - can enter lungs and cause damage. May be fatal if swallowed and enters airways.

**Chronic Toxicity**

Liver and kidney injuries may occur. Contains a known or suspected carcinogen. May cause sensitization by skin contact.

**Target Organ Effects**

Central nervous system, Cardiovascular system, Respiratory system, Kidney, Liver, Lungs, Bone Marrow.

**Aggravated Medical Conditions**

Neurological disorders, Heart disease, Respiratory disorders, Kidney disorders, Liver disorders.

**Potential Environmental Effects**

See Section 12 for additional Ecological information.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Petroleum distillates, hydrotreated light	64742-47-8
Tetrachloroethylene	127-18-4
Methylene chloride	75-09-2
Propylene oxide	75-56-9
Carbon tetrachloride	56-23-5

## 4. FIRST AID MEASURES

**General Advice**

Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.

**Eye Contact**

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.

**Skin Contact**

Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.

**Inhalation**

Move to fresh air. In case of shortness of breath, give oxygen. If breathing has stopped, apply artificial respiration. Get medical attention immediately.

**Ingestion**

Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.

**Notes to physician**

Aspiration hazard if swallowed - can enter lungs and cause damage. May cause sensitization of susceptible persons.

## 5. FIRE-FIGHTING MEASURES

**Flash Point** > 201 °F / > 94 °C**Method**

Seta closed cup

**Autoignition Temperature** No information available.**Upper 22****Lower 0.7****Flammability Limits in Air % Mixture.****Suitable Extinguishing Media**Foam. Alcohol-resistant foam. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.**Specific hazards arising from the chemical**

Solvent vapors are heavier than air and may spread along floors. Vapors may ignite and explode. Material can create slippery conditions.

**Protective Equipment and Precautions for Firefighters**

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

**NFPA****Health 2****Flammability 1****Instability 0****HMS****Health 2****Flammability 1****Instability 0**

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions**

Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.

**Environmental Precautions**

Do not flush into surface water or sanitary sewer system.

**Methods for Containment**

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

**Methods for Cleaning Up**

Use clean non-sparking tools to collect absorbed material.

## Neutralizing Agent

Not applicable.

## 7. HANDLING AND STORAGE

Handling  
Storage

Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.

Keep away from open flames, hot surfaces and sources of ignition. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.

Storage Temperature  
Storage Conditions

<b>Minimum</b>	35 °F / 2 °C		<b>Maximum</b>	120 °F / 49 °C
<b>Indoor</b>	X	<b>Outdoor</b>	<b>Heated</b>	<b>Refrigerated</b>

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

## Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Petroleum distillates, hydrotreated light	5 mg/m <sup>3</sup> as oil mist	10 mg/m <sup>3</sup> as oil mist	No data available
Tetrachloroethylene	TWA: 25 ppm STEL: 100 ppm	TWA: 100 ppm Ceiling: 200 ppm	IDLH: 150 ppm
Methylene chloride	TWA: 50 ppm	TWA: 25 ppm STEL: 125 ppm	IDLH: 2300 ppm
Propylene oxide	TWA: 2 ppm	TWA: 100 ppm TWA: 240 mg/m <sup>3</sup>	IDLH: 400 ppm
Carbon tetrachloride	TWA: 5 ppm Skin STEL: 10 ppm	TWA: 10 ppm Ceiling: 25 ppm	IDLH: 200 ppm STEL 2 ppm STEL 12.6 mg/m <sup>3</sup>

## Engineering Measures

Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.

## Personal Protective Equipment

## Eye/Face Protection

Tightly fitting safety goggles.

## Skin Protection

Wear suitable protective clothing. Impervious gloves.

## Respiratory Protection

In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

## General Hygiene Considerations

Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid	<b>Viscosity</b>	Non viscous
<b>Color</b>	Colorless	<b>Odor</b>	Chlorine Solvent
<b>Appearance</b>	Transparent	<b>pH</b>	Not applicable
<b>Specific Gravity</b>	1.05	<b>Evaporation Rate</b>	> 1 (Butyl acetate=1)
<b>Percent Volatile (Volume)</b>	100	<b>VOC Content (%)</b>	45
<b>VOC Content (g/L)</b>	474	<b>Vapor Pressure</b>	118.3 mmHg @ 70°F
<b>Vapor Density</b>	3.0 (Air = 1.0)	<b>Solubility</b>	Negligible
<b>Boiling Point/Range</b>	154 °F / 68 °C		

## 10. STABILITY AND REACTIVITY

## Chemical Stability

Stable. Hazardous polymerization does not occur.

## Conditions to Avoid

Heat, flames, and sparks

## Incompatible Products

Strong oxidizing agents, Strong acids, Strong bases, Amines, Aluminum, Zinc, Magnesium, Potassium.

## Hazardous Decomposition Products

Carbon oxides, Hydrogen chloride gas, Chlorine gas, Phosgene.

## Possibility of Hazardous Reactions

None under normal processing

## 11. TOXICOLOGICAL INFORMATION

## Product Information

No information available.

## Component Information

## Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Petroleum distillates, hydrotreated light	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 5.2 mg/L ( Rat ) 4 h	no data available	no data available
Tetrachloroethylene	= 2629 mg/kg ( Rat )	no data available	= 4000 ppm ( Rat ) 4 h	no data available	no data available
Methylene chloride	> 2000 mg/kg ( Rat )	no data available	= 76000 mg/m <sup>3</sup> ( Rat ) 4 h	no data available	no data available
Propylene oxide	= 520 mg/kg ( Rat )	no data available	no data available	no data available	no data available
Carbon tetrachloride	= 2350 mg/kg ( Rat )	= 5070 mg/kg ( Rat )	= 8000 ppm ( Rat ) 4 h	no data available	no data available

## Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Petroleum distillates, hydrotreated light	no data available	no data available	no data available	no data available	CNS, cardiovascular system, respiratory system, liver, kidney
Tetrachloroethylene	no data available	no data available	no data available	no data available	liver, kidneys, eyes, central nervous system, respiratory system, skin, cardiovascular system
Methylene chloride	no data available	no data available	no data available	no data available	skin, CVS, eyes, CNS (in animals: lung, liver, salivary and mammary gland tumors)
Propylene oxide	no data available	skin sensitization	no data available	no data available	eyes, respiratory system, skin (in animals: nasal tumors), CNS, bone marrow
Carbon tetrachloride	no data available	no data available	no data available	no data available	CNS, eyes, lungs, liver, kidneys, skin

## Carcinogenicity

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

Component	ACGIH	IARC	NTP	OSHA	Other
Petroleum distillates, hydrotreated light	not applicable	not applicable	not applicable	not applicable	not applicable
Tetrachloroethylene	A3	Group 2A	Reasonably Anticipated	X	not applicable
Methylene chloride	A3	Group 2B	Reasonably Anticipated	X	not applicable

Propylene oxide	A3	Group 2B	Reasonably Anticipated	X	not applicable
Carbon tetrachloride	A2	Group 2B	Reasonably Anticipated	X	not applicable

## 12. ECOLOGICAL INFORMATION

**Product Information** No information available.

**Component Information**

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Petroleum distillates, hydrotreated light	no data available	LC50 = 2.2 mg/L <i>Lepomis macrochirus</i> 96 h LC50 = 2.4 mg/L <i>Oncorhynchus mykiss</i> 96 h LC50 = 45 mg/L <i>Pimephales promelas</i> 96 h	no data available	LC50= 4720 mg/L 96 h	N/A
Tetrachloroethylene	EC50 > 500 mg/L <i>Pseudokirchneriella subcapitata</i> 96 h	LC50 11.0 - 15.0 mg/L <i>Lepomis macrochirus</i> 96 h LC50 12.4 - 14.4 mg/L <i>Pimephales promelas</i> 96 h LC50 4.73 - 5.27 mg/L <i>Oncorhynchus mykiss</i> 96 h LC50 8.6 - 13.5 mg/L <i>Pimephales promelas</i> 96 h	EC50 = 100 mg/L 24 h EC50 = 112 mg/L 24 h EC50 = 120.0 mg/L 30 min	EC50 6.1 - 9.0 mg/L 48 h	2.53 - 2.88
Methylene chloride	EC50 > 500 mg/L <i>Pseudokirchneriella subcapitata</i> 72 h EC50 > 500 mg/L <i>Pseudokirchneriella subcapitata</i> 96 h	LC50 140.8 - 277.8 mg/L <i>Pimephales promelas</i> 96 h LC50 262 - 855 mg/L <i>Pimephales promelas</i> 96 h LC50 = 193 mg/L <i>Lepomis macrochirus</i> 96 h	EC50 = 1 mg/L 24 h EC50 = 2.88 mg/L 15 min	EC50 1532 - 1847 mg/L 48 h EC50= 190 mg/L 48 h	1.25
Propylene oxide	EC50 = 240 mg/L <i>Pseudokirchneriella subcapitata</i> 96 h	LC50 = 215 mg/L <i>Lepomis macrochirus</i> 96 h	EC50 = 3300 mg/L 160 min	EC50= 350 mg/L 48 h	0.08
Carbon tetrachloride	EC50 = 830 mg/L <i>Tetrahymina pyriformis</i> 24 h	LC50 23 - 33 mg/L <i>Lepomis macrochirus</i> 96 h LC50 36.3 - 47.3 mg/L <i>Pimephales promelas</i> 96 h LC50 9.68 - 11.3 mg/L <i>Pimephales promelas</i> 96 h	EC50 = 34 mg/L 10 min EC50 = 5.6 mg/L 5 min	EC50= 28 mg/L 24 h EC50= 29 mg/L 48 h	2.75

**Persistence and Degradability** No information available.

**Bioaccumulation** No information available.

**Mobility** No information available.

## 13. DISPOSAL CONSIDERATIONS

**Product Disposal** Dispose of in accordance with local regulations.

**Container Disposal** Empty containers should be taken for local recycling, recovery, or waste disposal.

## 14. TRANSPORT INFORMATION

## DOT

**Proper Shipping Name** Toxic Liquid, Organic, N.O.S.,(Dichloromethane, Tetrachloroethylene)  
**Hazard Class** 6.1  
**UN-No** UN2810  
**Packing Group** III  
**Reportable Quantity (RQ)** Perchloroethylene, RQ kg = 140.00  
**Marine Pollutant** This product contains a chemical which is listed as a marine pollutant according to DOT.  
**Description** UN2810, Toxic Liquid, Organic, N.O.S.,(Dichloromethane,Tetrachloroethylene),6.1,III

## TDG

**Proper shipping name** Toxic Liquid, Organic, N.O.S.,(Dichloromethane, Tetrachloroethylene)  
**Hazard Class** 6.1  
**UN-No** UN2810  
**Packing Group** III  
**Marine Pollutant** This product contains a chemical which is listed as a marine pollutant according to TDG.  
**Description** UN2810, Toxic Liquid, Organic, N.O.S.,(Dichloromethane,Tetrachloroethylene),6.1,III

## ICAO

**UN-No** UN2810  
**Proper Shipping Name** Toxic Liquid, Organic, N.O.S.,(Dichloromethane, Tetrachloroethylene)  
**Hazard Class** 6.1  
**Packing Group** III  
**Shipping Description** UN2810, Toxic Liquid, Organic, N.O.S.,(Dichloromethane,Tetrachloroethylene)

## IATA

**UN-No** UN2810  
**Proper Shipping Name** Toxic Liquid, Organic, N.O.S.,(Dichloromethane, Tetrachloroethylene)  
**Hazard Class** 6.1  
**Packing Group** III  
**Shipping Description** UN2810, Toxic Liquid, Organic, N.O.S.,(Dichloromethane, Tetrachloroethylene),6.1,III

## IMDG/IMO

**Proper Shipping Name** Toxic Liquid, Organic, N.O.S.,(Dichloromethane, Tetrachloroethylene)  
**Hazard Class** 6.1  
**UN-No** UN2810  
**Packing Group** III  
**Marine Pollutant** This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO  
**Shipping Description** UN2810, Toxic Liquid, Organic, N.O.S.,(Dichloromethane,Tetrachloroethylene),6.1,III, Marine Pollutant

## 15. REGULATORY INFORMATION

## Inventories

**TSCA** Complies

**DSL** Complies

## U.S. 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 40n of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Tetrachloroethylene	127-18-4	15-40	0.1
Methylene chloride	75-09-2	10-30	0.1
Propylene oxide	75-56-9	0.1-1	0.1
Carbon tetrachloride	56-23-5	0.1-1	0.1

## SARA 311/312 Hazardous Categorization

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

## CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Petroleum distillates, hydrotreated light	Not applicable	Not applicable
Tetrachloroethylene	100 lb	Not applicable
Methylene chloride	1000 lb	Not applicable
Propylene oxide	100 lb	10000 lb TPQ 100 lb
Carbon tetrachloride	10 lb	Not applicable

## Canada

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

## WHMIS Hazard Class

D1B Toxic materials, D2A Very toxic materials, D2B Toxic materials.



## 16. OTHER INFORMATION

Prepared By Dan Hollas  
 Supersedes Date 12/27/2010  
 Issuing Date 08/09/2011  
 Reason for Revision No information available.  
 Glossary No information available.  
 List of References. No information available.

**CHEMSEARCH DIV. OF NCH CORP.** assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage or disposal of the product. The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.