

SAFETY DATA SHEET

Section 1: Chemical Product and Company Identification

Product name: Brake Cleaner II Product Code: 1650 Chemical Use: Automotive brake parts cleaner Date Prepared: 4/15/15 Supersedes: New

Restrictions on use: Use in accordance with all Federal, State and local regulations.

Company Identification: Streamline Supply Inc. 460 N. 1000 W. Centerville, Utah 84014 Manufactured by: Streamline Supply Inc. 460 N. 1000 W. Centerville, Utah 84014

Emergency Telephone Numbers: For Transportation Emergency: PERS (800) 633-8253 For Medical Emergency: PERS (800) 633-8253 or (877) 350-5426 For SDS or other information: (877) 350-5426 or (801) 294-2980 Email: info@streamlinesupply.com Fax: (801) 294-2626

Section 2: Hazard(s) Identification

GHS Classification:	Flammable liquids: Category 2
	Skin irritation: Category 2
	Reproductive toxicity: Category 2
	Specific Target organ
	Toxicity – single exposure: Category 3
	Aspiration hazard: Category 1
	Acute Aquatic Hazard: Category 2

GHS Label element

Hazard pictograms:



Signal Word: DANGER

Hazard Statements:

H225 Highly flammable liquid and vapour
H302 Harmful if swallowed
H305 May be harmful if swallowed and enters airways
H315 Causes skin irritation
H319 Causes serious eye irritation
H332 Harmful if inhaled
H336 May cause drowsiness or dizziness
H360 May damage fertility or the unborn child

Section 2: Hazard(s) Identification (continued) PRECAUTIONARY STATEMENTS: P210 Keep away from heat, sparks, flames, and hot surfaces. P233 Keep container closed. P240 Ground container and receiving equipment. P241 Use explosion-proof electrical, lighting, ventilating equipment P242 Use only non-sparking tools P243 Take precautionary measures against static discharge. P261 Avoid breathing mist, spray and vapours. P264 Wash exposed skin thoroughly after handling. P271 Use outdoors or in a well-ventilated area. P280 Wear protective gloves, protective clothing, face and eye protection. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse with water. P304+ P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsina. P312 Immediately call a doctor or poison center if you feel unwell P337+P313 If eye irritation persists: Get medical attention. P370+P378 In case of fire: Use alcohol resistant foam, Carbon dioxide or Dry chemical extinguishing media. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container in accordance with Federal, State, and local regulations.

EMERGENCY OVERVIEW

Harmful if inhaled, swallowed or absorbed through the skin. Causes irritation to skin, eyes, and respiratory tract. Affects the central and peripheral nervous system. Aspiration hazard. Possible risk for impaired fertility. Highly flammable liquid and vapor. May cause flash fire. Static electrical hazard. Target Organs: Central nervous system, respiratory system, eyes, skin, peripheral nervous system, and testes.

Section 3: Composition/Information on Ingredients

CHEMICAL NAME	CAS NUMBER	% BY WEIGHT
Hexane	110-54-3	50%-80%
Isopropyl Alcohol (2-Propanol)	67-63-0	20%-50%

Section 4: First Aid Measures

Emergency and First Aid Procedures:

Inhalation: If inhaled, remove to fresh air. If breathing is labored or with coughing, give 100% supplemental oxygen. If not breathing, begin artificial respiration. Get medical aid.

Ingestion: Aspiration hazard. Get medical aid. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. If not breathing, begin artificial respiration. DO NOT give mouth-to-mouth resuscitation.

Product #1650

Section 4: First Aid Measures (continued)

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover irritated skin with an emollient or anti-bacterial cream. Soap and cold water may be used. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact: Check for and remove contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Notes to Physician: Treat symptomatically and supportively. For ingestion, the stomach should be intubated, aspirated, and lavaged with a slurry of activated charcoal – protect the airway from aspiration of gastric contents. Analgesics may be necessary for pain management, there is no specific antidote. Monitor arterial blood gases in cases of severe aspiration.

Section 5: Fire-Fighting Measures

Flammability: Highly flammable liquid and vapor (GHS Category 2)

Auto-ignition Temperature: 225°C (437°F)

Flash Point: -22°C (-7.6°F)

Flammable Limits: Lower Limit – 1.1 vol %, Upper Limit – 7.5 vol %

Products of Combustion: Will decompose into highly toxic and irritating gases (carbon monoxide and carbon dioxide) under fire conditions.

Specific Fire Hazards: As in any fire, always wear self-contained breathing apparatus in pressure-demand (MSA/NIOSH approved or equivalent), and full protective gear. May accumulate static electric charge and may cause ignition of its own vapors. Use water spray to keep fire exposed containers cool. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. This mixture will float on water and may travel to a source of ignition and spread fire.

Specific Explosion Hazards: None

Fire Fighting Media: Use dry chemical, carbon dioxide, or appropriate foam. Solid streams of water may be ineffective and spread material. Water will not cool this mixture below its flash point.

Section 6: Accidental Release Measures

Steps to Take in Case Material Is

Released or Spilled: Absorb spilled liquid with sorbent pads, socks, or other inert material such as vermiculite, sand, or earth. Provide ventilation to the affected area and remove all ignition sources. Avoid run-off into storm sewers and ditches that lead to waterways. Approach the spill from upwind and pick up absorbed material and place it in a suitable container. Use only non-sparking tools and equipment. A vapor suppressing foam may be used. Always use proper personal protective equipment as described in section 8.

Section 7: Handling and Storage

Precautions: Always use proper personal protective equipment as described in section 8. Wash thoroughly after handling. Ground and bond containers when transferring material. Avoid accumulation of static electricity. Avoid contact with eyes, skin, and clothing. Remove contaminated clothing and wash before reuse. Empty containers contain product residue (liquid and vapor) and can be dangerous. Keep container tightly closed and away from heat, spark, and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks, or open flames. Use with adequate ventilation. Avoid breathing vapor or mist.

Storage: Keep in a flammables area away from all sources of ignition and oxidizing materials. Keep in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Protect from moisture.

Section 8: Exposure Controls/Personal Protection

Exposure Limits:

 Product Name: Hexane

 Synonyms: n-Hexane; Hexanes, Hexyl hydride

 ACGIH – 50 ppm TWA; Skin – potential significant contribution to overall exposure by cutaneous route

 NIOSH – 50 ppm TWA; 180 mg/m3 TWA; 1100 ppm IDLH

 OSHA Final PELs – 500 ppm TWA; 1800 mg/m3 TWA

 Product Name: Isopropyl Alcohol

 Synonyms: 2-propanol, Dimethyl Carbinol, IPA, Isopropanol, Rubbing Alcohol

 ACGIH – 200 ppm TWA; 400 ppm STEL

 NIOSH – 400 ppm TWA; 980 mg/m3 TWA; 2000 ppm IDLH

 OSHA Final PELs – 400 ppm TWA; 980 mg/m3 TWA

Engineering Measures: Use explosion-proof ventilation equipment. Facilities storing or using the material should be equipped with eyewash station and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment (PPE): Wear protective chemical goggles or appropriate eye protection. Use appropriate protective gloves and protective clothing to prevent skin exposure.

Respiratory Protection: A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever possible. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9: Physical Data

Appearance: Colorless, clear liquid Odor: Solvent \alcohol odor Vapor Pressure: No data available Odor Threshold: No data available pH: No data available Melting/freezing Point: No data available Boiling Point: No data available Flash Point: -11°C Upper /lower flammability or Explosive Limits: No data available Auto-ignition Temperature: 283°C Viscosity: No data available Flammable Limits in Air: Lower Limits – 1.1 vol %, Upper Limit – 7.5 vol %

Vapor Density (Air =1): No data available Relative density: .70 Solubility in Water: Insoluble Boiling Range: No data available Evaporation Rate: No data available Partition coefficient n-octanol/water): No data available Decomposition Temperature: No data available

Section 10: Stability and Reactivity

Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Ignition sources, excess heat, electrical sparks, confined spaces, and vapor accumulation.

Incompatibility With Various Substances: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon, dioxide.

Hazardous Polymerization: Will not occur.

Product #1650

Section 11: Toxicological Information

Routes of Entry: Inhalation, skin absorption, skin contact.

Acute Exposure Hazards:

INHALATION HAZARD: Inhalation of vapors irritates the respiratory tract. Overexposure may cause central nervous system depression with lightheadedness, nausea, headache, and blurred vision. Greater exposure may cause muscle weakness, numbness of the extremities, unconsciousness and suffocation. Vapors can displace oxygen, especially in confined spaces.

INGESTION HAZARD: May produce gastrointestinal irritation with abdominal pain, nausea, vomiting, and diarrhea. Aspiration into lungs may cause chemical pneumonitis, which may be fatal. May cause central nervous system depression.

SKIN CONTACT HAZARD: May cause redness, irritation, dryness, cracking, and pain. Defatting or dermatitis may result from prolonged or repeated exposure. May be absorbed through the skin with possible systemic effects. There are no reports of skin sensitization through occupational exposure.

EYE CONTACT HAZARD: Produced irritation characterized by a burning sensation, redness, tearing, inflammation, and possible corneal damage. May cause transient corneal injury. In the eyes of a rabbit, 0.1 ml of 70% isopropanol caused conjunctivitis and corneal opacity.

CHRONIC EXPOSURE HAZARDS: Repeated or prolonged skin contact may defat the skin and produce irritation and dermatitis. Prolonged exposure may cause adverse reproductive effects and visual disturbances. Chronic inhalation may cause peripheral nerve disorders and central nervous system effects. Laboratory tests have resulted in mutagenic effects. May affect the developing fetus. Chronic exposure produces peripheral neuropathy with effects including muscular weakness, paresthesia, numbing of the hands, feet, legs, and arms, unsteadiness, and difficulty walking and standing. Repeated exposure may cause nervous system abnormalities with muscle weakness and damage, motor incoordination, and sensation disturbances. Persons with pre-existing skin disorders or eye problems or impaired respiratory function may be more susceptible to the effects of the substance.

Animal Toxicity:

Product Name: Hexane Synonyms: n-Hexane; Hexanes, Hexyl hydride

Draize test, rabbit, eye: 10 mg Mild; Inhalation, mouse: LC50 = 150,000 mg/m3/2H; Inhalation, rat: LC50 = 4800 ppm/4H; Inhalation, rat: LC50 = 627,000 mg/m3/3M; Oral, rat: LD50 = 25 g/kg;

Product Name: Isopropyl Alcohol **Synonyms:** 2-propanol, Dimethyl Carbinol, IPA, Isopropanol, Rubbing Alcohol

Draize test, rabbit, eye: 100 mg Severe; Draize test, rabbit, eye: 10 mg Moderate; Draize test, rabbit, eye: 100 mg/24 hr Moderate; Draize test, rabbit, skin: 500 mg Mild; Inhalation, mouse: LC50 = 53,000 mg/m3; Inhalation, rat: LC50 = 16,000 ppm/8 hr; Inhalation, rat: LC50 = 72,600 mg/kg; Oral, mouse: LD50 = 3600 mg/kg; Oral, mouse: LD50 = 3600 mg/kg; Oral, rabbit: LD50 = 6410 mg/kg; Oral, rat: LD50 = 5045 mg/kg; Oral, rat: LD50 = 5000 mg/kg; Skin, rabbit: LD50 = 12,800 mg/kg;

Section 11: Toxicological Information (continued)

Carcinogenicity: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65

Epidemiology: Occupational polyneuropathy has resulted from hexane exposures as low as 500 ppm, but minimum levels of n-hexane that are neurotoxic in humans haven't been established. Nearly continuous exposure of animals in 250 ppm has caused neurotoxic effects. Experimental teratogenic and reproductive effects have been reported. Early epidemiological studies have suggested an association between the strong acid manufacture of isopropyl alcohol and paranasal sinus cancer in workers.

Teratogenicity: No evidence of teratogenicity or embryotoxicity in animal studies with hexane. Fetotoxicity has been observed in the presence of maternal toxicity. With Isopropyl, a rat and rabbit developmental toxicity study showed no teratogenic effects at doses that were clearly toxic to the mother. In a separate rate study, no evidence of developmental neurotoxicity was associated with gestational exposures to isopropanol up to 1200 mg/kg/d.

Reproductive Effects: Severe testicular damage has been observed in rats exposed to hexane at concentrations which have produced other significant toxicity. Although subneurotoxic doses of its principle metabolite, 2,5-hexanedione, can induce progressive testiculartoxicity in rats, there have been no reports of human sterility or other reproductive toxicity associated with n-hexane or Isopropyl exposure.

Mutagenicity: Positive results (chromosomal damage in the bone marrow cells) obtained for rats exposed by inhalation to n-hexane. With Isopropyl mutagenic effects in animals have not been observed.

Neurotoxicity: n-Hexane is a mild irritant and central nervous system depressant in acute exposure, but its principle effect are damage to sensory and motor peripheral nerves, particularly in chronic exposure. No information is available with Isopropyl.

Section 12: Ecological Information

Product Name: Hexane

Synonyms: n-Hexane; Hexanes, Hexyl hydride

Ecotoxicity: Experimental studies involving Hexane show acute aquatic toxicity values of 2.1 mg/L and greater than 1000 mg/L.

Environmental Fate: Persistence: Volatilization from soil surfaces is expected to be an important fate process. Hexane will be degraded in the atmosphere by reaction with hydroxyl radicals; the half-life of this reaction in air is estimated to be three days. Screening studies suggest that Hexane will undergo biodegradation in soil and water surfaces, but volatilization in expected be the predominant fate process in the environment. Hydrolysis is not expected to be an important environmental fate process. Bioaccumulation: An estimated bioconcentration factor (BCF) of 2300 and log Kow of 3.9 for Hexane suggest the potential for bioconcentration in aquatic organisms is high. Metabolites may partially bioaccumulate in the lipid bilayer of fish tissues. Mobility: Hexane is highly volatile and will partition rapidly in the air. When released into water, Hexane will be lost by volatilization from moist soil surfaces is expected to be an important fate process based on a Koc of 150. Volatilization from moist soil surfaces is expected to be an important fate process based on a Henry's law constant of 1.83 atm-m3/mole. Hexane may volatilize from dry surfaces based on its vapor pressure.

Product Name: Isopropyl Alcohol **Synonyms:** 2-propanol, Dimethyl Carbinol, IPA, Isopropanol, Rubbing Alcohol

Ecotoxicity:

Fish: Fathead minnow: 1000 ppm; 96 Hr; LC50

Daphnia: 1000 ppm; 96 Hr; LC50

Fish: Golden orfe: 8970-9280 ppm, 48 Hr, LC50

IPA has a high biochemical oxygen demand and a low potential to cause oxygen depletion in aqueous systems. It has a low potential to affect aquatic organisms, secondary waste treatment microbial metabolism, and the germination of some plants. It has a high potential to biodegrade (low persistence) with unacclimated microorganisms from activated sludge. **Environmental Fate:** No information available.

Physical: THOD: 2.40 g oxygen/g; COD: 2.23 g oxygen/g; BOD-5: 1.19-1.72 g oxygen/g

Section 13: Disposal Information

Disposal Considerations: Material that cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Processing, use or contamination of this product may change the waste management options. Waste generators must decide if discarded material is a hazardous waste. State and local disposal regulations may differ from federal disposal definitions found in 40 CFR 261.3. Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14: Transportation Information

Ground – DOT Proper Shipping Name:

UN1993, Flammable Liquid, N.O.S. (Contains Hexane, Isopropyl Alcohol), 3, PGII

Section 15: Regulatory Information

Product Name: Hexane

Synonyms: n-Hexane; Hexanes, Hexyl hydride

US Federal Regulations:

TSCA: CAS# 110-54-3 is listed on the TSCA Inventory.

Health and Safety Reporting List: CAS# 110-54-3 is not listed.:

Chemical Test Rules: CAS# 110-54-3 is not listed.

Section 12b: CAS# 110-54-3 is not listed.

TSCA Significant New Use Rule: Does not have an SNUR under TSCA.

CERCLA Hazardous Substances: CAS# 110-54-3 – 5000 lb final RQ; 2270 kg final RQ

SARA Section 302: Does not have a TPQ

SARA Codes: CAS# 110-54-3 - immediate, delayed, fire

Section 313: n-Hexane (CAS# 110-54-3) is subject to SARA Title III Section 313 and 40 CFR 373 reporting requirements. Clean Air Act: CAS# 110-54-3 is listed as a hazardous air pollutant (HAP). It is not a Class 1 Ozone Depleter. It is not a Class 2 Ozone Depleter.

Clean Water Act: CAS# 110-54-3 is not listed as a Hazardous Substance. It is not a Priority Pollutant. It is not a Toxic Pollutant.

OSHA: Not considered highly hazardous by OSHA.

US State Regulations:

CAS# 110-54-3 is on the following state right-to-know lists: New Jersey, Pennsylvania, Minnesota, and Massachusetts

California Prop 65: California No Significant Risk Level: Not listed

Canada:

DSL/NDSL: CAS# 110-54-3 is listed on Canada's DSL list.

WHMIS: This product has a WHMIS classification of B2, D2B. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and this SDS contains all the information required by those regulations.

Ingredient Disclosure List: CAS# 110-54-3 is listed on Canada's Ingredient Disclosure List. **DSCL (EEC):**

Hazard Symbols: Xn; F; N

Risk Phrases: R11 – Highly Flammable; R38 – Irritating to skin; R48/20 – Harmful, danger of serious damage to health by prolonged exposure through inhalation; R62 – Possible risk of impaired fertility; R51/53 – Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment; R65 – Harmful, may cause lung damage if swallowed; R67 – Vapors may cause drowsiness and dizziness.

Safety Phrases: S16 – Keep away from sources of ignition-no smoking; S29 – Do not empty into drains; S33 – Take precautionary measures against static discharge; S36/37: Wear suitable protective clothing and gloves; S9 – Keep container in well ventilated place; S61 – Avoid release to the environment. Refer to special instructions/safety data sheets; S62 – If swallowed, do not induce vomiting, seek medical advice immediately and show this container or label. **WGK (Water Danger/protection):** CAS# 110-54-3: 1

Section 15: Regulatory Information (continued)

Product Name: Isopropyl Alcohol

Synonyms: 2-propanol, Dimethyl Carbinol, IPA, Isopropanol, Rubbing Alcohol

US Federal Regulations:

TSCA: CAS# 67-63-0 is listed on the TSCA Inventory.

Health and Safety Reporting List: Effective 12/15/86, Sunset 12/15/96.

Chemical Test Rules: CAS# 67-63-0: 40 CFR 799.2325

Section 12b: Not listed.

TSCA Significant New Use Rule: Does not have an SNUR under TSCA.

CERCLA Hazardous Substances: CAS67-63-0 does not have an RQ

SARA Section 302: Does not have a TPQ

SARA Codes: CAS# 67-63-0 – acute, chronic, flammable

Section 313: Isopropanol (CAS# 67-63-0) is subject to SARA Title III Section 313 and 40 CFR 373 reporting requirements.

Clean Air Act: CAS# 67-63-0 is not listed as a hazardous air pollutant (HAP). It is not a Class 1 Ozone Depleter. It is not a Class 2 Ozone Depleter.

Clean Water Act: CAS# 67-63-0 is not listed as a Hazardous Substance. It is not a Priority Pollutant. It is not a Toxic Pollutant.

OSHA: Not considered highly hazardous by OSHA.

US State Regulations:

CAS# 67-63-0 is on the following state right-to-know lists: California, New Jersey, Pennsylvania, Minnesota, and Massachusetts

California Prop 65: California No Significant Risk Level: Not listed

Canada:

DSL/NDSL: CAS# 67-63-0 is listed on Canada's DSL list.

WHMIS: This product has a WHMIS classification of B2, D2B. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and this MSDS contains all the information required by those regulations. Ingredient Disclosure List: CAS# 67-63-0 is listed on Canada's Ingredient Disclosure List.

DSCL (EEC):

Hazard Symbols: Xi; F

Risk Phrases: R11 – Highly Flammable; R36 – Irritating to eyes; R67 – vapors may cause doziness and dizziness. **Safety Phrases:** S16 – Keep away from sources of ignition-no smoking; S24/25 – Avoid contact with skin and eyes; S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice; S7 – Keep container tightly closed.

WGK (Water Danger/protection): CAS# 67-63-0: 1

Section 16: Other Information

Hazardous Materials Identification System (HMIS)

NOTE: HMIS ratings use a numbering scale that ranges from 0 - 4 to indicate the degree of hazard. A value of zero means the chemical presents no hazard while a value of four indicates a high hazard. These ratings are based on the inherent properties of this chemical under expected conditions of normal use and are not intended to be used in emergency situations. PPE is determined by the user based on their needs and conditions.



Section 16: Other Information (continued)

National Fire Protective Association (NFPA)

NOTE: NFPA ratings use a numbering scale that ranges from 0 - 4 to indicate the degree of hazard. A value of zero means the chemical presents no hazard while a value of four indicates a high hazard. They are for use by emergency personnel to address the hazards that are presented by short term, acute exposure to this product under fire, spill, or similar emergencies. Ratings involve data and interpretations that may vary from company to company.



OVERVIEW

This information was compiled from current manufacturer's SDS's of the component parts of the product.

Disclaimer: The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. 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 the protection of the environment.

STREAMLINE SUPPLY INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, TEDIA COMPANY, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.