

Issuing date 17-Dec-2014

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Version 1.02

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** 80-700 ENVIRO-SMART BRAKE CLEAN**Recommended use of the chemical
and restrictions on use****Product code** F00534**Product Type** Extremely flammable aerosol
Synonyms None**Supplier's details****Recommended Use** non-chlorinated brake cleaner.
Uses advised against No information available**Manufactured For:**
Kimball Midwest
4800 Roberts Rd.
Columbus, OH 43228**Emergency telephone number**
Chemical Emergency Phone Chemtrec 1-800-424-9300
Number
Company Emergency Phone 800-233-1294
Number

2. HAZARDS IDENTIFICATION

Classification

Acute Toxicity - Oral	Category 4
Acute Toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable aerosols	Category 1
Gases under pressure	Compressed Gas

GHS Label elements, including precautionary statements

Emergency Overview

DANGER

Hazard Statements

Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
Suspected of causing cancer
May cause drowsiness or dizziness
Extremely flammable aerosol
Contains gas under pressure; may explode if heated



Appearance Cloudy

Physical state Aerosol

Odor Mild

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Wash hands and face thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Do not spray on an open flame or other ignition source
Pressurized container: Do not pierce or burn, even after use

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Storage

Store locked up
Protect from sunlight. Store in a well-ventilated place
Do not expose to temperatures exceeding 122°F (50°C)
Keep container tightly closed.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None

Other information

- Toxic to aquatic life with long lasting effects

0.00548899% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %*
PROPANE/ISOBUTANE/N-BUTANE	68476-86-8	10-20
PROPYLENE GLYCOL N-BUTYL ETHER	5131-66-8	1-10
XYLENE	1330-20-7	1-10
2-BUTANONE	78-93-3	1-10
ETHYL BENZENE	100-41-4	1-10
MORPHOLINE	110-91-8	1-10

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**First aid measures for different exposure routes**

General advice	Avoid contact with skin, eyes, and clothing. Avoid breathing, vapors, mist, or gas.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	Wash off immediately with plenty of water. Remove and wash contaminated clothing before re-use. Get medical attention immediately if symptoms occur.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. If breathing has stopped, contact emergency medical services immediately.
Ingestion	Do NOT induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person. Risk of product entering the lungs on vomiting after ingestion.

Most important symptoms/effects, acute and delayed

Main Symptoms	May cause skin irritation. Causes skin irritation. May cause respiratory irritation. Harmful if swallowed. Inhalation causing Central Nervous System effects. ingestion causing lung damage.
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Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

water fog. Dry chemical. Carbon dioxide (CO2). Cool containers / tanks with water spray.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Flammable or extremely flammable aerosol. Container may burst in fire.

Explosion Data

Sensitivity to Mechanical Impact none.

Sensitivity to Static Discharge Yes.

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. Use shielding to protect fire-fighters from bursting containers.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions	Use with adequate ventilation to keep the exposure levels below the OELS.
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Environmental precautions

Environmental precautions	Report spills as required by local and federal regulations.
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Methods and materials for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
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Methods for cleaning up	Contain liquid and collect with an inter,non-combustible material.
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7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling	Avoid contact with eyes. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can. Avoid skin contact. Use with adequate ventilation. Keep container away from heat, flames, and all other sources of ignition. Keep can away from all sources of electricity such as electric motors and batteries. Do not spray on hot surfaces.
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Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
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Incompatible products	Store away from strong oxidizers and acids.
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Aerosol Level	1
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	74-98-6: TWA: 1000 ppm 106-97-8: STEL: 1000 ppm 75-28-5: STEL: 1000 ppm	74-98-6: TWA: 1000 ppm TWA: 1800 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m ³ 106-97-8: (vacated) TWA: 800 ppm (vacated) TWA: 1900 mg/m ³	74-98-6: IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m ³ 106-97-8: TWA: 800 ppm TWA: 1900 mg/m ³ 75-28-5: TWA: 800 ppm TWA: 1900 mg/m ³
XYLENE 1330-20-7	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m ³	-
2-BUTANONE 78-93-3	STEL: 300 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 590 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 590 mg/m ³ (vacated) STEL: 300 ppm (vacated) STEL: 885 mg/m ³	IDLH: 3000 ppm TWA: 200 ppm TWA: 590 mg/m ³ STEL: 300 ppm STEL: 885 mg/m ³
ETHYL BENZENE 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m ³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³
MORPHOLINE 110-91-8	TWA: 20 ppm Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 20 ppm TWA: 70 mg/m ³ (vacated) TWA: 20 ppm (vacated) TWA: 70 mg/m ³ (vacated) STEL: 30 ppm (vacated) STEL: 105 mg/m ³ (vacated) S* S*	IDLH: 1400 ppm TWA: 20 ppm TWA: 70 mg/m ³ STEL: 30 ppm STEL: 105 mg/m ³

ACGIH: (American Conference of Governmental Industrial Hygienists)

OSHA: (Occupational Safety & Health Administration)

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines

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

Exposure controls

Engineering Measures

Ventilation systems. Use adequate ventilation to keep the exposure levels below the OELs.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Safety glasses with side-shields.

Skin and body protection

Chemical resistant apron. Protective gloves.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical state	Aerosol	Odor	Mild
Appearance	Cloudy	Odor Threshold	No information available
Color	white		

<u>Property</u>	<u>Values</u>	<u>Remarks • Methods</u>
pH	11	
Melting/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash Point	-104.4 °C / -156 °F	Based on propellant
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
upper flammability limit	No information available	
lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	0.906	
Water solubility	Practically insoluble	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	Not applicable
Decomposition temperature	No information available	
Viscosity	No information available	
Explosive properties	No information available	

Other information

VOC Content(%)	35.48
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10. STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Store away from strong oxidizers and acids.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Product Information	Product does not present an acute toxicity hazard based on known information
Inhalation	Exposure to high vapour concentrations may cause nervous systems effects such as headache, nausea, and dizziness.
Eye contact	May cause slight irritation.

Skin contact Irritating to skin. Prolonged skin contact may defat the skin and produce dermatitis.

Ingestion Not acutely toxic. Aspiration into the lungs during swallowing may cause serious lung damage which may be fatal.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
PROPYLENE GLYCOL N-BUTYL ETHER 5131-66-8	= 1900 mg/kg (Rat)	-	-
XYLENE 1330-20-7	= 3500 mg/kg (Rat)	> 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h
2-BUTANONE 78-93-3	= 2483 mg/kg (Rat)	= 5000 mg/kg (Rabbit)	= 11700 ppm (Rat) 4 h
ETHYL BENZENE 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
MORPHOLINE 110-91-8	= 1050 mg/kg (Rat)	310 - 810 mg/kg (Rabbit)	= 8000 ppm (Rat) 8 h

Information on toxicological effects

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting . Irritating to skin. Prolonged or repeated exposure may cause dermatitis. Contact with eyes may cause irritation. Not acutely toxic. Aspiration into the lungs during swallowing may cause serious lung damage which may be fatal.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.
Eye damage/irritation Irritating to eyes.
Sensitization No information available.
Germ Cell Mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has evaluated a listed ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
XYLENE 1330-20-7	-	Group 3	-	-
ETHYL BENZENE 100-41-4	A3	Group 2B	-	X
MORPHOLINE 110-91-8	-	Group 3	-	-

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

A2 - Suspected Human Carcinogen

IARC: (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Reproductive toxicity The ingredients are not reproductive hazards.

Specific target organ systemic toxicity (single exposure) May cause drowsiness and dizziness.

Specific target organ systemic toxicity (repeated exposure) No information available.

Chronic toxicity Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Prolonged skin contact may defat the skin and produce dermatitis. May cause adverse liver effects.

Target Organ Effects Central nervous system, Eyes, Kidney, Liver, Respiratory system, Skin, Blood, Gastrointestinal tract (GI), Reproductive system.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0.00548899% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	72083 mg/kg
ATEmix (dermal)	14352 mg/kg
ATEmix (inhalation-dust/mist)	16.4 mg/l
ATEmix (inhalation-vapor)	101468.2 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	-	-	-	-
XYLENE 1330-20-7	-	13.1 - 16.5 mg/L LC50 Lepomis macrochirus 96h flow-through 13.5 - 17.3 mg/L LC50 Oncorhynchus mykiss 96h 2.661 - 4.093 mg/L LC50 Oncorhynchus mykiss 96h static 23.53 - 29.97 mg/L LC50 Pimephales promelas 96h static 30.26 - 40.75 mg/L LC50 Poecilia reticulata 96h static 7.711 - 9.591 mg/L LC50 Lepomis macrochirus 96h static 13.4 mg/L LC50 Pimephales promelas 96h flow-through 19 mg/L LC50 Lepomis macrochirus 96h 780 mg/L LC50 Cyprinus carpio 96h semi-static 780 mg/L LC50 Cyprinus carpio 96h	-	0.6 mg/L LC50 Gammarus lacustris 48h 3.82 mg/L EC50 water flea 48h
2-BUTANONE 78-93-3	-	3130 - 3320 mg/L LC50 Pimephales promelas 96h flow-through	-	4025 - 6440 mg/L EC50 Daphnia magna 48h Static 5091 mg/L EC50 Daphnia magna 48h 520 mg/L EC50 Daphnia magna 48h
ETHYL BENZENE 100-41-4	4.6 mg/L EC50 Pseudokirchneriella subcapitata 72h 438 mg/L EC50 Pseudokirchneriella subcapitata 96h 2.6 - 11.3 mg/L EC50 Pseudokirchneriella subcapitata 72h static 1.7 - 7.6 mg/L EC50 Pseudokirchneriella subcapitata 96h static	11.0 - 18.0 mg/L LC50 Oncorhynchus mykiss 96h static 7.55 - 11 mg/L LC50 Pimephales promelas 96h flow-through 9.1 - 15.6 mg/L LC50 Pimephales promelas 96h static 32 mg/L LC50 Lepomis macrochirus 96h static 4.2 mg/L LC50 Oncorhynchus mykiss 96h semi-static 9.6 mg/L LC50 Poecilia reticulata 96h static	-	1.8 - 2.4 mg/L EC50 Daphnia magna 48h
MORPHOLINE 110-91-8	28 mg/L EC50 Pseudokirchneriella subcapitata 96h static	375 - 460 mg/L LC50 Oncorhynchus mykiss 96h 350 mg/L LC50 Lepomis macrochirus 96h static 1000 mg/L LC50 Brachydanio rerio 96h static	-	-

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	log Pow
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	2.8
XYLENE 1330-20-7	3.15
2-BUTANONE 78-93-3	0.29
ETHYL BENZENE 100-41-4	3.118
MORPHOLINE 110-91-8	-2.55

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment****Waste Disposal Methods**

Dispose of in accordance with federal, state, and local regulations.

Contaminated packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION**DOT Ground**CONSUMER COMMODITY ORM-D
or
LIMITED QUANTITY**IATA**

UN1950, AEROSOLS, FLAMMABLE, 2.1, LTD. QTY.

IMDG

UN1950, AEROSOLS, 2.1, LTD. QTY.

15. REGULATORY INFORMATION**International Inventories**

Chemical Name	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
PROPANE/ISOBUTANE/N-BUTANE	X	X	X	Not listed	X	X	X	X
PROPYLENE GLYCOL N-BUTYL ETHER	X	X	X	X	X	X	X	X
XYLENE	X	X	X	X	X	X	X	X
2-BUTANONE	X	X	X	X	X	X	X	X
ETHYL BENZENE	X	X	X	X	X	X	X	X
MORPHOLINE	X	X	X	X	X	X	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 CHINA - 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

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 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %*	SARA 313 - Threshold Values %
XYLENE - 1330-20-7	1330-20-7	1-10	1.0
ETHYL BENZENE - 100-41-4	100-41-4	1-10	0.1

SARA 311/312 Hazard Categories

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

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
XYLENE 1330-20-7	100 lb			X
ETHYL BENZENE 100-41-4	1000 lb	X	X	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	Extremely Hazardous Substances RQs	RQ
XYLENE 1330-20-7	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
2-BUTANONE 78-93-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
ETHYL BENZENE 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
ETHYL BENZENE - 100-41-4	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
XYLENE 1330-20-7	X	X	X

2-BUTANONE 78-93-3	X	X	X
ETHYL BENZENE 100-41-4	X	X	X
MORPHOLINE 110-91-8	X	X	X

EPA Pesticide Registration Number 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.

16. OTHER INFORMATION

NFPA	Health Hazard 2	Flammability 4	Instability 0	Physical and chemical hazards -
HMIS	Health Hazard 2	Flammability 4	Physical Hazard 1	Personal protection B

Prepared By Regulatory Affairs
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Revision Note

No information available

Disclaimer

The information provided on this SDS 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.

End of Safety Data Sheet