

Issuing date 31-Dec-2014

Revision Date 31-Dec-2014

Version 1.05

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** 80-708 CS-90 EQUIPMENT DEGREASER**Recommended use of the chemical
and restrictions on use****Product code** F00496**Product Type** Extremely flammable aerosol
Synonyms None**Supplier's details****Recommended Use** Equipment Degreaser.
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
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin Sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration toxicity	Category 1
Flammable aerosols	Category 1
Gases under pressure	Compressed Gas

GHS Label elements, including precautionary statements

Emergency Overview

DANGER

Hazard Statements
 Harmful if swallowed
 Causes skin irritation
 Causes serious eye irritation
 May cause an allergic skin reaction
 Suspected of causing cancer
 May cause drowsiness or dizziness
 May cause damage to organs (respiratory system, Central nervous system, and Lungs), through prolonged or repeated exposure.
 May be fatal if swallowed and enters airways
 Extremely flammable aerosol
 Contains gas under pressure; may explode if heated



Appearance opaque **Physical state** Aerosol **Odor** Solvent

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
- Contaminated work clothing should not be allowed out of the workplace
- Do not breathe 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 or rash occurs: Get medical advice/attention
 Wash contaminated clothing 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: Immediately call a POISON CENTER or doctor/physician
 Rinse mouth
 Do NOT induce vomiting

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %*
1,1-DIFLUOROETHANE	75-37-6	10-20
D-LIMONENE	5989-27-5	1-10
ETHOXYLATED AMINE	PROPRIETARY	1-10
ALKANOLAMIDE	68603-42-9	1-10
DIETHANOLAMINE	111-42-2	0.1-1.0

*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	In the case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical advice.
Skin contact	Wash off immediately with soap and 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. May cause allergic skin reaction.

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

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

water fog. Dry chemical. Foam. 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. Extremely flammable.

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.

Environmental precautions

Environmental precautions Report spills as required by local and federal regulations.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Contain liquid and collect with an inert, non-combustible material.

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.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products Store away from strong oxidizers and acids. Carbon oxides.

Aerosol Level 1

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
DIETHANOLAMINE 111-42-2	TWA: 1 mg/m ³ inhalable fraction and vapor Skin - potential significant contribution to overall exposure by the cutaneous route	(vacated) TWA: 3 ppm (vacated) TWA: 15 mg/m ³	TWA: 3 ppm TWA: 15 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	Solvent
Appearance	opaque	Odor Threshold	No information available
Color	white		
Property	Values	Remarks • Methods	
pH	10.0		
Melting/freezing point	No information available		
Boiling point/boiling range	No information available		
Flash Point	-50 °C / -58 °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	0.946		
Water solubility	Practically insoluble		
Partition coefficient: n-octanol/water	No information available		
Autoignition temperature	No information available		

Decomposition temperature No information available
Viscosity No information available
Explosive properties No information available

Other information

VOC Content(%) 9.74

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. Carbon oxides.

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

Inhalation may cause, nose, throat, and respiratory tract irritation, coughing, headache.

Eye contact

Contact with eyes may cause irritation.

Skin contact

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

Ingestion

Not acutely toxic. May cause vomiting or headache.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
1,1-DIFLUOROETHANE 75-37-6	-	-	369,000 ppm (Mouse) 2 hour
D-LIMONENE 5989-27-5	= 4400 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
DIETHANOLAMINE 111-42-2	= 0.62 mL/kg (Rat)	-	-

Information on toxicological effects**Symptoms**

Inhalation may cause nose, throat, and respiratory tract irritation. Contact with eyes may cause irritation. Irritation to skin; prolonged or repeated exposure may cause dermatitis. If ingested-not acutely toxic, though, may cause vomiting and headache.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Skin corrosion/irritation**

Irritating to skin. May cause an allergic skin reaction.

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
ALKANOLAMIDE 68603-42-9	-	2B	-	x
DIETHANOLAMINE 111-42-2	-	2B	-	x

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

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) Causes damage to organs through prolonged or repeated exposure.

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.

Aspiration hazard May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0% 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) 44404 mg/kg

ATEmix (dermal) 50509 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
D-LIMONENE 5989-27-5	-	0.619 - 0.796 mg/L LC50 Pimephales promelas 96h flow-through 35 mg/L LC50 Oncorhynchus mykiss 96h	-	-
ALKANOLAMIDE 68603-42-9	-	3.6 mg/L LC50 Brachydanio rerio 96h semi-static	-	-
DIETHANOLAMINE 111-42-2	7.8 mg/L EC50 Desmodemus subspicatus 72h 2.1 - 2.3 mg/L EC50 Pseudokirchneriella subcapitata 96h	1200 - 1580 mg/L LC50 Pimephales promelas 96h static 4460 - 4980 mg/L LC50 Pimephales promelas 96h flow-through 600 - 1000 mg/L LC50 Lepomis macrochirus 96h static	-	55 mg/L EC50 Daphnia magna 48h

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	log Pow
DIETHANOLAMINE 111-42-2	-2.18

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods Dispose of contents/container in accordance with local regulation.

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/NDL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
1,1-DIFLUOROETHANE	X	X	X	X	X	X	X	X
D-LIMONENE	X	X	X	X	X	X	X	X
ALKANOLAMIDE	X	X	X	X	X	X	X	X
DIETHANOLAMINE	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/ELI NCS - 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 does not contain any 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 %
DIETHANOLAMINE - 111-42-2	111-42-2	0.1-1.0	1.0

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 does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

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
DIETHANOLAMINE 111-42-2	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

U.S. State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
ALKANOLAMIDE - 68603-42-9	Carcinogen
DIETHANOLAMINE - 111-42-2	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
1,1-DIFLUOROETHANE 75-37-6	X	X	
DIETHANOLAMINE 111-42-2	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

Issuing date 31-Dec-2014

Revision Date 31-Dec-2014

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