KIMBALL MIDWEST
Specializing in Materials Management

SAFETY DATA SHEET.

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 Number Chemtrec 1-800-424-9300
Company Emergency Phone Number 800-233-1294

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 ventiliation 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 inter,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 ventiliation. 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/m³ inhalable fraction and vapor Skin - potential significant contribution to overall exposure by the cutaneous route	(vacated) TWA: 3 ppm (vacated) TWA: 15 mg/m³	TWA: 3 ppm TWA: 15 mg/m³

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
Appearance opaque
Color white
Odor Solvent
Odor Threshold No information available

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 Desmodesmus 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/NDSL	EINECS/ELINCS	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/NDSL - 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 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

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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