



SECTION 1: PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: LRF Adhesive M HFO Part 2

MANUFACTURER: GAF

ADDRESS: 1 Campus Drive, Parsippany, NJ 07054

24 HOUR EMERGENCY PHONE: (CHEMTREC) 800-424-9300

INFORMATION ONLY: 800-766-3411

PREPARED BY: Corporate EHS

APPROVED BY: Corporate EHS

SECTION 2: HAZARDS IDENTIFICATION

NFPA and HMIS RATINGS:

	NFPA Hazard Rating		HMIS Hazard Rating
	1		1
	0		0
	0		0
Special Hazards	-	Personal Protection	X

GHS LABEL ELEMENTS:

GHS CLASSIFICATION: Aquatic Acute – Category 3
Aquatic Chronic- Category 3
Pressurized Gas

GHS PICTOGRAMS:



SIGNAL WORD: Warning

HAZARD STATEMENTS: Contains gas under pressure; may explode if heated.
Harmful to aquatic life.
Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS: Avoid release to the environment.
Protect from sunlight.
Store in a well-ventilated place.
Dispose of contents/container in accordance with local/regional/national/international regulations.

ADDITIONAL HAZARD IDENTIFICATION INFORMATION:

PRIMARY ROUTE OF EXPOSURE: Skin Contact, Eye Contact

SIGNS & SYMPTOMS OF EXPOSURE

EYES: This product may cause eye irritation.

SKIN: This product may irritate the skin.

INGESTION: This product is not expected to be ingested. However, ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

INHALATION: None expected.

ACUTE HEALTH HAZARDS: See above.

CHRONIC HEALTH HAZARDS: Repeated skin contact exposures may cause sensitization.

CARCINOGENICITY: None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

			OCCUPATIONAL EXPOSURE LIMITS		
CHEMICAL NAME	CAS #	% (BY WT)	OSHA	ACGIH	OTHER
Trans-1-Chloro-3,3,3-trifluoropropene	102687-65-0	2.5 -10	NE	NE	NE

2,2'-oxybisethanol	111-46-6	2.5 – 10	NE	NE	NE
Proprietary additive	NA	<=2.5	NE	NE	NE

NE = Not Established

SECTION 4: FIRST AID MEASURES

FIRST AID PROCEDURES

EYES: Immediately flush eyes with water for at least 15 minutes while holding eyelids open. Seek medical attention.

SKIN: Wash exposed skin with soap and water. If irritation develops or persists, seek medical attention. Discard contaminated clothing.

INHALATION: Move affected individual to an area free of risk from further exposure. Administer oxygen or artificial respiration as needed. Immediate or delayed asthma-like symptoms may develop. Seek medical attention.

INGESTION: If the material is swallowed, seek immediate medical attention. Rinse out mouth with water. Drink 1 - 2 glasses of water but DO NOT induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: None known.

SECTION 5: FIRE FIGHTING PROCEDURES

SUITABLE EXTINGUISHING MEDIA: Water spray, carbon dioxide, or dry chemical. Fight larger fires with water spray. Use firefighting measures that suit the environment. Do not use water jet.

HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide, carbon monoxide.

RECOMMENDED FIRE FIGHTING PROCEDURES: Firefighters should wear full protective clothing including self contained breathing apparatus.

UNUSUAL FIRE & EXPLOSION HAZARDS: Containers may burst if overheated. This product reacts with water producing carbon dioxide gas. Do not reseal contaminated containers as a hazardous pressure build up could result in container rupture.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Absorb spill with inert material. Ventilate the contaminated area. Shovel material into appropriate container for further neutralization and disposal. Evacuate the area promptly. Keep upwind of the spilled material and isolate exposure. Avoid inhalation of vapors and mists. Surfaces may become slippery after a spill. Wear PPE for spill clean-up. Stop the flow of material, if possible. Do not allow to drain to sewers.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Do not spray on a naked flame or any incandescent material. Keep ignition sources away - Do not smoke. Protect against electrostatic charges. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 100°F, i.e. electric lights. Do not pierce or burn, even after use. Store in a cool, dry place.

OTHER PRECAUTIONS: Empty containers may contain hazardous residuals. Keep away from heat, sparks and open flame. DO NOT cut, drill, puncture, weld or grind on or near full, partially full or empty product containers. Store in a cool location away from direct heat. Observe official regulations on storing packagings with pressurized containers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS / VENTILATION: Provide adequate local ventilation to maintain worker exposure below exposure limits.

RESPIRATORY PROTECTION: Use a NIOSH-approved respirator to protect against inhalation of vapors. A respirator should be used if ventilation is unavailable, or is inadequate for keeping vapor levels below the applicable exposure limits. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application.

EYE PROTECTION: Wear safety glasses and a face shield or chemical goggles.

SKIN PROTECTION: The use of neoprene, nitrile or butyl rubber gloves and disposable body protection is recommended.

OTHER PROTECTIVE EQUIPMENT: Eye wash stations and safety showers are recommended.

WORK HYGIENIC PRACTICES: Wash exposed skin prior to eating, drinking or smoking and at the end of each shift.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR:	Hazy aerosol with slightly sweet odor.
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FLASH POINT:	No Data	LOWER EXPLOSIVE LIMIT:	No Data
METHOD USED:	No Data	UPPER EXPLOSIVE LIMIT:	No Data
EVAPORATION RATE:	No Data	BOILING POINT:	No Data
pH (undiluted product):	No Data	MELTING POINT:	No Data
SOLUBILITY IN WATER:	Slightly soluble	SPECIFIC GRAVITY:	No Data
VAPOR DENSITY:	No Data	PERCENT VOLATILE:	< 0.15
VAPOR PRESSURE:	No Data	MOLECULAR WEIGHT:	No Data
VOC (Per EPA 24):	<50 g/L	SPECIFIC GRAVITY (LBS/GAL):	8.35

SECTION 10: STABILITY AND REACTIVITY

THERMAL STABILITY:

STABLE X

UNSTABLE

CONDITIONS TO AVOID (STABILITY):

Contact with moisture, other materials that react with isocyanates, or temperatures above 350F (177C), may cause polymerization.
Avoid heat, flames, sparks.
Reacts with water forming carbon dioxide-may rupture sealed containers if contaminated with water.

INCOMPATIBILITY (MATERIAL TO AVOID):

Water, heat, flame, sparks, oxidizing agents.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

Carbon dioxide, carbon monoxide.

HAZARDOUS POLYMERIZATION:

Contact with moisture, other materials that react with isocyanates, may cause polymerization.

SECTION 11: TOXICOLOGICAL INFORMATION

Primary irritant effect:

- **on the skin:**

May irritate the skin.

- **on the eye:**

May irritate the eyes.

- **Sensitization:**

Sensitizing effect by skin contact is possible with prolonged exposure.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:

Harmful to aquatic life.

Harmful to aquatic life with long lasting effects.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Water hazard class 2 (Self-assessment): hazardous for water

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Must be specially treated adhering to official regulations.
Disposal must be made according to official regulations.

SECTION 14: TRANSPORTATION INFORMATION**DOT**

Chemical under pressure, n.o.s. (trans-1-Chloro-3,3,3-trifluoropropene)

IATA

Chemical under pressure, n.o.s. (trans-1-Chloro-3,3,3-trifluoropropene)

IMDG

Chemical under pressure, n.o.s. (trans-1-Chloro-3,3,3-trifluoropropene)

SECTION 15: REGULATORY INFORMATION**U.S. FEDERAL REGULATIONS**

TSCA: This product and its components are listed on the TSCA 8(b) inventory.

CERCLA: None.

SARA

311/312 HAZARD CATEGORIES: Acute Health Hazard

CALIFORNIA PROPOSITION 65: None.

SECTION 16: OTHER INFORMATION

ADDITIONAL COMMENTS: None

DATE OF PREVIOUS SDS: None

CHANGES SINCE PREVIOUS SDS: New product.

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