

1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Name: ReleaSys™ 80S
Spray Foam Release Coating

Product Use: Release Agent

MANUFACTURER/DISTRIBUTOR:

Emergency Phone Number:
(800) 424-9300

Miller-Stephenson Chemical
55 Backus Ave.
Danbury, Conn. 06810 USA
(203) 743-4447

2. HAZARDS IDENTIFICATION

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazard classification

Skin corrosion/irritation: Category 2
Reproductive Toxicity: Category 2
Specific target organ toxicity (single exposure): Category 3
Specific target organ toxicity (repeated exposure): Category 2
Flammable Aerosols: Category 1
Gases under pressure: Liquefied gas

Label elements:

Signal Word

Danger

Pictograms



Hazard Statements

Causes skin irritation
Suspected of damaging fertility or the unborn child
May cause drowsiness or dizziness
May cause damage to organs through prolonged or repeated exposure
May be fatal if swallowed and enters airways
Extremely flammable aerosol
Contains gas under pressure; may explode if heated

Precautionary Statements

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Pressurized container: Do not pierce or burn, even after use
Do not spray on an open flame or other ignition source
IF exposed or concerned: Get medical advice/attention
Specific treatment (see supplemental first aid instructions on this label)

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF ON SKIN (or hair): Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

Protect from sunlight.

Dispose of contents/container to an approved waste disposal plant.

60 - 70% of the mixture consists of ingredient(s) of unknown toxicity.

May be harmful in contact with skin.

Toxic to aquatic life with long lasting effects.

PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION.

Use of alcoholic beverages may enhance toxic effects.

Hazards not otherwise classified (HNOC): Not applicable.

3. INGREDIENTS

<u>Material(s)</u>	<u>CAS No.</u>	<u>Approximate%</u>
Hexane	110-54-3	30 - 40
1,1,1,2-Tetrafluoroethane	811-97-2	60 - 70

4. FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, (trained personnel should) give oxygen.

Eye: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Skin: In case of contact with liquefied gas, thaw frosted parts with lukewarm water.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, (trained personnel should) give oxygen.

Oral: Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Aspiration hazard if swallowed - can enter lungs and cause damage. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Call a physician or poison control center immediately.

Self-protection of the first aider: Ensure that medical personnel are aware of the material(s) involved, take precautions to protect

themselves and prevent spread of contamination.

Most important symptoms/effects, acute and delayed: Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Notes to Physician: Treat symptomatically.

General information: Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

5. FIRE FIGHTING MEASURES

Fire and Explosion: Some may burn but none ignite readily. Ruptured cylinders may rocket.

Suitable Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire. Water spray, fog or regular foam. Move containers from fire area if you can do it without risk. Damaged cylinders should be handled only by specialists. Dry chemical, CO₂, alcohol-resistant foam or water spray.

Unsuitable extinguishing media: DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

Uniform Fire Code Aerosols: Level III
 Irritant: Liquid

Hazardous Combustion Products

Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact Yes.

Sensitivity to Static Discharge Yes.

Special Fire Fighting Instruction: Move containers from fire area if you can do it without risk. Damaged cylinders should be handled only by specialists.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Stop leak if you can do it without risk. Ventilate the area.

Environmental precautions: Prevent entry into waterways, sewers, basements or confined areas.

Spill Cleanup: If possible, turn leaking containers so that gas escapes rather than liquid. Allow substance to evaporate. Do not direct water at spill or source of leak.

7. HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Keep away from open flames, hot surfaces and sources of ignition. Contents under pressure. Do not puncture or incinerate cans. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Use personal protection equipment. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use spark-proof tools and explosion-proof equipment. Use only with adequate ventilation and in closed systems. Keep in an area equipped with sprinklers. In case of rupture. Avoid contact with skin and eyes.

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Protect from moisture. Keep out of the reach of children. Store away from other materials. Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near

combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

Incompatible materials: Strong acids. Strong oxidizing agents. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here

Chemical name	OSHA PEL	ACGIH TLV
Hexane 110-54-3	TWA: 500 ppm TWA: 1800 mg/m ³	TWA: 50 ppm S*
Cyclohexane 110-82-7	TWA: 300 ppm TWA: 1050 mg/m ³	TWA: 100 ppm

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits

Engineering Measures: Showers, Eyewash stations, Ventilation systems.

Respiratory Protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Eye/Face Protection: Tight sealing safety goggles.

Skin Protection: Wear protective, impervious gloves.

Body Protection: Wear protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

General Hygiene: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 156°F/69°C

Percent Volatile by Volume: N.A.

Melting/Freezing Point: N.A.

Flash Point: N.A.

Note: Flammable testing is conducted by ignition distance test and enclosed space ignition test. This product is flammable.

Density: 0.65 g/ml at 77°F/25°C

Vapor Pressure: N.A.

Vapor Density (Air=1): N.A.

Solubility in H₂O: N.A.

pH Information: N.A.

Evaporation Rate (CC14=1): N.A.

Physical Form: Aerosol

Appearance: Clear

Color: Straw Yellow

Odor: Mild

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: None under normal processing.

Hazardous Polymerization: Hazardous polymerization does not occur.

Material and Conditions to Avoid: Heat, flames and sparks. Excessive heat.

Incompatible materials: Strong acids. Strong oxidizing agents. Strong bases.

Hazardous Decomposition Products: Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation: Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause drowsiness or dizziness.

Eye contact: Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). May cause redness, itching, and pain. May cause irritation.

Skin contact: Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components). Repeated exposure may cause skin dryness or cracking.

Ingestion: Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Hexane 110-54-3	= 25 g/kg (Rat)	= 3000 mg/kg (Rabbit)	= 48000 ppm (Rat) 4 h
Cyclohexane 110-82-7	= 12705 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 32880 mg/m3 (Rat) 4 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms: Erythema (skin redness). May cause redness and tearing of the eyes. Difficulty in breathing. Coughing and/ or wheezing. Asthma-like and/ or skin allergy-like symptoms. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

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

Sensitization: No information available.

Mutagenic Effects: No information available.

Carcinogenicity: Contains no ingredient listed as a carcinogen.

Reproductive toxicity: Contains a known or suspected reproductive toxin.

STOT - single exposure: Central nervous system (CNS).

STOT - repeated exposure: Causes damage to organs through prolonged or repeated exposure. Based on classification criteria from the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200), this product has been determined to cause systemic target organ toxicity from chronic or repeated exposure. (STOT RE).

Chronic Toxicity: Contains a known or suspected reproductive toxin. Possible risk of irreversible effects. Aspiration may cause pulmonary edema and pneumonitis. Avoid repeated exposure. Prolonged exposure may cause chronic effects.

Target organ effects: Respiratory system. Eyes. Skin. Reproductive system. Central nervous system. Peripheral Nervous System (PNS). Cardiovascular system.

Aspiration Hazard: May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

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

ATEmix (oral): 25,806.50 mg/kg

ATEmix (dermal): 3,096.80 mg/kg (ATE)

ATEmix (inhalation-vapor): 174.6251 ATEmix

12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a marine pollutant according to DOT.

Ecotoxicity: Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hexane 110-54-3		96h LC50: 2.1 - 2.98 mg/L (Pimephales promelas)		
Cyclohexane 110-82-7	72h EC50: > 500 mg/L (Desmodesmus subspicatus)	96h LC50: 3.96 - 5.18 mg/L (Pimephales promelas) 96h LC50: 23.03 - 42.07 mg/L (Pimephales promelas) 96h LC50: 24.99 - 44.69 mg/L (Lepomis macrochirus) 96h LC50: 48.87 - 68.76 mg/L (Poecilia reticulata)	EC50 = 85.5 mg/L 5 min EC50 = 93 mg/L 10 min	

Persistence and Degradability

No information available.

Bioaccumulation

Chemical name	Partition coefficient
Hexane 110-54-3	4
Cyclohexane 110-82-7	3.44

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods: This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Should not be released into the environment. Dispose of contents/containers in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

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

US EPA Waste Number: D001 U056

California Waste Codes: 331

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste
Hexane 110-54-3	Toxic Ignitable
Cyclohexane 110-82-7	Toxic Ignitable

14. TRANSPORT INFORMATION

U.S. DOT

Limited Quantity

IATA

UN-No. UN1950

Hazard Class: 2.1

ERG Code: 10L

Proper Shipping Name: UN1950, AEROSOLS, FLAMMABLE, 2.1

IMDG/IMO

UN-No. UN1950

Hazard Class: 2.1

EmS-No.: F-D, S-U

Proper Shipping Name: UN1950, AEROSOLS, 2.1

Marine Pollutant: This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA: All ingredients are listed in TSCA inventory.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity: This material does not contain any components with a section 302 EHS TPQ.

SARA 313 (TRI Reporting): This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR 372): Hexane (CAS# 110-54-3), Cyclohexane (CAS# 110-82-7).

SARA 311/312 Hazards: Skin corrosion/irritation: Category 2
 Reproductive Toxicity: Category 2
 Specific target organ toxicity (single exposure): Category 3
 Specific target organ toxicity (repeated exposure): Category 2
 Flammable Aerosols: Category 1
 Gases under pressure: Liquefied gas

CWA (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
Cyclohexane 110-82-7	1000 lb			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
Hexane 110-54-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Cyclohexane 110-82-7	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

State Regulations (U.S.)

California Proposition 65: This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

Chemical name	California Proposition 65
Hexane - 110-54-3	Male Reproductive

16. OTHER INFORMATION

NPCA-HMIS Ratings:

Health 2*
 Flammability 4
 Physical Hazard 3
 Personal Protective rating to be supplied by user depending on the conditions.

NFPA Ratings:

Health 2
 Flammability 4
 Instability 0
 Physical and Chemical Hazard N/A

FOR INDUSTRIAL USE ONLY

DATE: MARCH 28, 2025

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.