1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Name: MS-145W
Release Agent for Hot Molds

Product Use: Release Agent for Hot Molds

MANUFACTURER/DISTRIBUTOR:

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

Emergency Phone Number:
(800) 424-9300

2. HAZARDS IDENTIFICATION

Hazard classification
Serious eye damage/eye irritation: Category 2A

Label elements:
Signal word
Warning

Pictograms

Hazard Statements
Causes serious eye irritation.

Precautionary Statements
Wash skin thoroughly after handling.
Wear protective gloves/eye protection/face protection.
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.

Other Hazards
The thermal decomposition vapors of fluorinated polymers may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco.

3. INGREDIENTS

Hazardous Ingredients	CAS No.	Approximate %
Alcohols, C9-11, ethoxylated	68439-46-3	< 0.5

4. FIRST AID MEASURES

Inhalation: Remove patient to fresh air. Get medical attention if necessary.

Eye: Flush with large amounts of water for at least 15 minutes. Remove contact lenses, if present. Get medical attention.

Skin: Wash with water and soap as a precaution. Get medical attention if necessary.

Oral: If swallowed, DO NOT induce vomiting. Rinse mouth thoroughly with water. Never give anything to an unconscious person. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed: Causes serious eye irritation.

5. FIRE FIGHTING MEASURES

Flash Point: Does not flash. **Thermal decomposition:** 300°C (572°F)

Suitable Extinguishing Media: Water spray, Alcohol-resistant foam, Dry chemical, Carbon dioxide (CO2)

Unsuitable extinguishing media: None known

Special hazards: Exposure to combustion products may be hazardous to health.

Hazardous combustion products: Hydrogen fluoride, Carbonyl fluoride, Carbon oxides, potentially toxic fluorinated compounds, aerosolized particulates.

Special Fire Fighting Instruction: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Evacuate personnel to safe areas. Cool cans with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Evacuate personnel, ventilate area with fresh air, if a large amount is accidental released, use self-contained breathing apparatus. Dike spill by containment or oil barriers. Prevent material from entering sewers, waterways or low areas. Soak up with inert absorbent materials. Local and national regulations may apply to releases and disposal of this material, as well as the materials and items employed in the cleanup of releases. You need to determine which regulations are applicable.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes or clothing. Avoid breathing vapors or spray mist. Wash thoroughly after handling. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

Storage Conditions: Do Not Freeze.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection

Eye Protection: Avoid eye contact. Use chemical goggles or safety glasses with side shields.

Skin Protection: Avoid contact with skin. Where there is potential for skin contact, have available and wear as appropriate, impervious gloves. Breakthrough time is not determined for the product. Change gloves as often as necessary.

Hygiene measures: Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 212°F/100°C

Density: 1.01 g/cc

Vapor Density (Air=1): >1

pH Information: 9 - 10

Form: Liquid

Color: White

Percent Volatile by Volume: 98%

Vapor Pressure: 24 mm Hg at 77^{O}F/25^{O}C

Solubility in H_2O : Insoluble

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

Appearance: Milky

Odor: Faint Sweet Odor

10. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and storage conditions.

Incompatible Materials and Conditions to Avoid: Acids.

Possibility of hazardous reactions: Hazardous decomposition products will be formed at elevated temperatures.

Hazardous Decomposition Products: Hydrofluoric acid, Carbonyl difluoride, Carbon dioxide, and Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity: None of the components in this product are listed as a carcinogen by IARC, NTP, OSHA, or ACGIH.

Alcohols, C9-11, ethoxylated

Acute dermal toxicity: LD50: > 2,000 mg/kg, rat. Method: OECD Test Guideline 402.
Acute oral toxicity: LD50: > 300 – 2,000 mg/kg, rat. Based on data from similar materials.
Skin corrosion/irritation: No skin irritation, rabbit
Serious eye damage/eye irritation: Irreversible effects on the eye. Rabbit
Respiratory or skin sensitization: Not classified based on available information.
Germ cell mutagenicity: Not classified based on available information.
Reproductive toxicity: Not classified based on available information.
Repeated dose toxicity: NOAEL; >= 500mg/kg, rat, by ingestion for 90 days.
Aspiration toxicity: Not classified based on available information.

12. ECOLOGICAL INFORMATION

Alcohols, C9-11, ethoxylated

96 hour LC50 Pimephales promelas (fathead minnow): 1 - 10 mg/l
48 hour EC50 Daphnia magna (Water flea) 1 - 10 mg/l

Biodegradability: Readily biodegradable.

Bioaccumulation: No data available
Mobility in soil: No data available
Other adverse effects: No data available

13. DISPOSAL CONSIDERATIONS

Waste Disposal: In accordance with local and national regulations.

Environmental Hazards: If recycling is not practicable, dispose of in compliance with local regulations.

14. TRANSPORT INFORMATION

U.S. DOT
Not Regulated

IATA
Not Regulated

IMDG
Not Regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA: All ingredients are listed in TSCA inventory.

U.S. State Regulations

California Prop. 65
WARNING: This product can expose you to chemicals including pentadecafluorooctanoic acid, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

16. OTHER INFORMATION

NPCA-HMIS Ratings:

Health	- 1
Flammability	- 0
Reactivity	- 0

Personal Protective rating to be supplied by user depending on the conditions.

FOR INDUSTRIAL USE ONLY

REVISION DATE: AUGUST 2019

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.