

GRAINGER®

FOMO PRODUCTS

HANDI-FOAM ONE-COMPONENT POLYURETHANE FOAM SEALANT

Revised: 5/1/2003

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Item Number:

4KK25

Mfg. Model Number:

P10002

HANDI-FOAM(R*) ONE-COMPONENT POLYURETHANE FOAM SEALANT

A16150

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PREPARED BY: T. EBERLING

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

CHEMICAL PRODUCT: HANDI-FOAM(R*) ONE-COMPONENT POLYURETHANE FOAM SEALANT

MANUFACTURER:
FOMO PRODUCTS, INC.
P.O. BOX 1078
NORTON, OHIO 44203

EMERGENCY OVERVIEW:

PRODUCT INFORMATION: 1-800-321-5585.

IN OHIO AND OUTSIDE THE UNITED STATES CALL: (330) 753-4585

TRANSPORTATION EMERGENCY:

CHEMTREC: 1-800-424-9300.

HANDI-FOAM(R*) ONE-COMPONENT POLYURETHANE FOAM SEALANT IS REGISTERED BY THE MANUFACTURER, FOMO PRODUCTS, INC.

INTERNATIONAL TRANSPORTATION EMERGENCY:
CHEMTREC: (703) 527-3887

PRODUCT IS A LIQUID URETHANE PREPOLYMER MIXTURE THAT IS PACKAGED UNDER PRESSURE (NON-FLAMMABLE COMPRESSED GAS).

CONTAINERS SHOULD NOT BE HEATED ABOVE 120 DEG. F (49 DEG. C) TO AVOID EXCESSIVE PRESSURE BUILD-UP.

2. COMPOSITION

(HAZARDOUS COMPONENTS)

CHEMICAL NAME (COMMON NAMES)	CAS NUMBER	PERCENTAGE	LD50	LC50
FLUOROCARBON (NON-FLAMMABLE COMPRESSED GAS) HCFC	NOT AVAILABLE THIS SECTION	10 TO 30 PERCENT	N/A	N/A
4,4' - DIPHENYLMETHANE DIISOCYANATE (MDI)	101-68-8	10 TO 30 PERCENT	N/A	N/A
HIGHER OLIGOMERS OF MDI (POLYMERIC MDI)	9016-87-9	10 TO 30 PERCENT	N/A	N/A
URETHANE PRE-POLYMER BLEND (NON-HAZARDOUS PROPRIETARY BLEND)	NOT AVAILABLE THIS SECTION	15 TO 40 PERCENT	N/A	N/A

(NOTE: SEE SECTION 8 OF THIS MSDS FOR EXPOSURE GUIDELINES)

3. HAZARDS IDENTIFICATION

PHYSICAL HAZARDS:

SINCE THE CONTAINERS ARE PRESSURIZED, STORAGE TEMPERATURE SHOULD NOT EXCEED 120 DEG. F (49 DEG C) IN ORDER TO AVOID EXCESSIVE PRESSURE BUILD-UP AND POSSIBLE CONTAINER RUPTURE. ALSO, THE FOAM HAS STRONG ADHESIVE-LIKE CHARACTERISTICS AND WILL ADHERE AGGRESSIVELY TO SKIN AND OTHER SURFACES. IF ACCIDENTAL FOAM CONTACT OCCURS, FOLLOW THE APPROPRIATE FIRST-AID PROCEDURE DESCRIBED IN SECTION 4 OF THIS MSDS.

POTENTIAL HEALTH EFFECTS:

THE PRIMARY ADVERSE HEALTH EFFECTS OF THIS MATERIAL ARE RELATED TO THE POLYMERIC ISOCYANATE (MDI) COMPONENT, AND, TO A LESSER DEGREE, THE FLUOROCARBON (NON-FLAMMABLE GAS) COMPONENT. THEREFORE, ADEQUATE VENTILATION SHOULD BE PROVIDED TO AVOID EXCEEDING THE EXPOSURE LIMITS OF THESE COMPONENTS (SEE SECTION 8). THE LIKELIHOOD OF EXCEEDING THESE LIMITS ARE LOW DUE TO THE LOW CONCENTRATION OF VAPOR PRODUCED DURING NORMAL USE. HOWEVER, IF USED INDOORS, MECHANICAL VENTILATION OR EXHAUST SHOULD BE PROVIDED DURING USE AND UNTIL FOAM IS CURED.

ENTRY ROUTE EFFECTS OF OVEREXPOSURE

INHALATION: MAY IRRITATE MUCOUS MEMBRANES WITH TIGHTNESS IN CHEST, COUGHING, OR ALLERGIC ASTHMA-LIKE SENSITIVITY. EXTENSIVE OVEREXPOSURE CAN LEAD TO RESPIRATORY SYMPTOMS LIKE BRONCHITIS AND PULMONARY EDEMA. THESE EFFECTS ARE USUALLY REVERSIBLE.

OVEREXPOSURE TO FLUOROCARBON MAY CAUSE LIGHTHEADEDNESS, HEADACHES, OR LETHARGY. PERSONS WITH CARDIAC ARRHYTHMIA MAY BE AT INCREASED RISK IN SEVERE EXPOSURE.

SKIN: MAY CAUSE LOCALIZED IRRITATION, REDDENING OR SWELLING. PROLONGED OR REPEATED EXPOSURE MAY LEAD TO SENSITIZATION AND/OR DERMATITIS.

EYES: MAY BE IRRITATING TO EYES. FOAM CONTACT CAN CAUSE PHYSICAL DAMAGE DUE TO ADHESIVE CHARACTER.

INGESTION: MAY CAUSE IRRITATION OF MUCOUS MEMBRANES IN THE MOUTH AND DIGESTIVE TRACT.

4. FIRST AID

INHALATION:

IF BREATHING DIFFICULTY IS EXPERIENCED, MOVE TO AREA FREE OF EXPOSURE. PROVIDE FRESH AIR. IF NECESSARY, PROVIDE OXYGEN OR ARTIFICIAL RESPIRATION BY TRAINED PERSONNEL AND OBTAIN MEDICAL ATTENTION.

EYE CONTACT:

FLUSH WITH CLEAN POTABLE WATER FOR AT LEAST 15 MINUTES AND OBTAIN MEDICAL ATTENTION.

SKIN CONTACT:

USE A RAG TO REMOVE EXCESS FOAM FROM SKIN AND REMOVE CONTAMINATED CLOTHING. USE OF A MILD SOLVENT, SUCH AS ACETONE (NAIL POLISH REMOVER) OR MINERAL SPIRITS, MAY HELP IN REMOVING UNCURED FOAM RESIDUE FROM CLOTHING OR OTHER SURFACES (AVOID EYE CONTACT). CURED FOAM MAY BE PHYSICALLY REMOVED BY PERSISTENT WASHING WITH SOAP AND WATER. IF IRRITATION DEVELOPS, USE MILD

SKIN CREAM. IF IT PERSISTS, OBTAIN MEDICAL ATTENTION.

INGESTION:

DO NOT INDUCE VOMITING. DRINK 1-2 GLASSES OF WATER OR MILK. CONSULT PHYSICIAN. DO NOT GIVE ANYTHING ORALLY TO AN UNCONSCIOUS PERSON.

5. FIRE FIGHTING MEASURES

HIGH TEMPERATURES WILL RAISE THE PRESSURE IN THE CONTAINERS, WHICH MAY LEAD TO RUPTURING. EXTINGUISHING MEDIA INCLUDE:
DRY CHEMICAL, CARBON DIOXIDE, HALON 1211, CHEMICAL FOAM, OR WATER SPRAY IF USED IN LARGE QUANTITIES (WATER CONTAMINATION WILL PRODUCE CARBON DIOXIDE). WEAR SELF-CONTAINED BREATHING APPARATUS TO PROTECT AGAINST TOXIC DECOMPOSITION BY-PRODUCTS, INCLUDING CO, CO₂, NO, AND TRACES OF HCN OR HCL. CURED FOAM IS ORGANIC AND, THEREFORE, WILL BURN IN THE PRESENCE OF SUFFICIENT HEAT, OXYGEN AND IGNITION SOURCE.

6. ACCIDENTAL RELEASE MEASURES/DISPOSAL CONSIDERATIONS

PROVIDE ADEQUATE VENTILATION AND WEAR RECOMMENDED PROTECTIVE CLOTHING (IMPERVIOUS GLOVES, SAFETY GOGGLES, LONG SLEEVE WORK CLOTHES). UNCURED FOAM IS VERY STICKY, SO CAREFULLY REMOVE THE BULK OF THE FOAM BY SCRAPING IT UP AND THEN IMMEDIATELY REMOVE RESIDUE WITH A RAG AND A SOLVENT SUCH AS HANDI-FOAMCLEAN(TM) A, MINERAL SPIRITS, ACETONE (NAIL POLISH REMOVER), PAINT THINNER, ETC. ONCE THE FOAM HAS CURED, IT CAN ONLY BE REMOVED PHYSICALLY BY SCRAPING, BUFFING, ETC. DISPOSE AS PLASTIC WASTE (FOAM PLASTIC) IN ACCORDANCE WITH ALL APPLICABLE GUIDELINES AND REGULATIONS.

BEFORE DISPOSING OF CONTAINERS, RELIEVE CONTAINER OF ANY REMAINING FOAM AND PRESSURE. ALLOW FOAM TO FULLY CURE BEFORE DISPOSING. NEVER DISCARD IN LIQUID STATE.

7. HANDLING AND STORAGE

STORE IN A COOL, DRY PLACE. IDEAL STORAGE TEMPERATURE IS 60 DEG. F TO 80 DEG. F (15.5 DEG. C TO 26.6 DEG. C). STORAGE ABOVE 90 DEG. F (32.2 DEG. C) WILL SHORTEN THE SHELF LIFE. STORAGE BELOW 55 DEG. F (12.7 DEG. C) MAY AFFECT FOAM QUALITY IF CHEMICALS ARE NOT WARMED BEFORE USING. PROTECT CONTAINERS FROM PHYSICAL ABUSE. PROTECT UNUSED PRODUCT FROM

FREEZING.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

READ ALL PRODUCT INSTRUCTIONS BEFORE USING. PERSONAL PROTECTIVE EQUIPMENT SHOULD INCLUDE SAFETY EYE WEAR, CHEMICAL RESISTANT GLOVES, AND LONG SLEEVE WORK CLOTHES. ADEQUATE VENTILATION SHOULD ALSO BE EMPLOYED SO THAT VAPOR LEVELS DO NOT EXCEED RECOMMENDED GUIDELINES. IF VAPOR LEVELS ARE EXPECTED TO EXCEED THESE GUIDELINES, USE NIOSH/MSHA APPROVED, POSITIVE PRESSURE, SUPPLIED AIR RESPIRATOR. EXERCISE GOOD PERSONAL HYGIENE, WASH THOROUGHLY AFTER EACH USE.

EXPOSURE GUIDELINES	OSHA	ACGIH
4,4' - DIPHENYLMETHANE	.020 PPM CEILING	.005 PPM TWA
DIISOCYANATE (MDI)	.200 MG/M3 CEILING	.051 MG/M3 TWA
HIGHER OLIGOMERS OF MDI	NONE ESTABLISHED	NONE ESTABLISHED
FLUOROCARBON (NON-FLAMMABLE COMPRESSED GAS) HCFC	1,000 PPM TWA	1,000 PPM TWA

(NONE OF THE COMPONENTS IN THIS PRODUCT ARE LISTED BY IARC, NTP, OSHA OR ACGIH AS A CARCINOGEN).

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL APPEARANCE:

VISCOUS LIQUID WHICH FOAMS UPON RELEASE FROM CONTAINER AS AN OFF-WHITE TO YELLOWISH FROTH.

ODOR: SLIGHT FLUOROCARBON ODOR DURING CURING STAGE.

SPECIFIC GRAVITY: APPROXIMATELY 1.2 (H₂O = 1)

BOILING POINT:

FLUOROCARBON (HCFC) COMPONENT (NON-FLAMMABLE COMPRESSED GAS) BOILS AT 0 DEG. F (-17.7 DEG. C).

OTHER COMPONENTS BOIL AT TEMPERATURES GREATER THAN 200 DEG. F (93.3 DEG. C)

FLASH POINT:

PRODUCT FLASH POINT HAS BEEN TESTED AT APPROXIMATELY 800 DEG. F (426.6 DEG. C)

VAPOR PRESSURE:

CONTENTS UNDER PRESSURE HAVE VAPOR PRESSURE GREATER THAN 50 PSIG/345 KPA.
AFTER RELEASE FROM CONTAINER, VAPOR PRESSURE IS VERY LOW (NOT DETERMINED).

SOLUBILITY IN WATER:

INSOLUBLE, REACTS SLOWLY WITH WATER DURING CURE; LIBERATING TRACES OF CO₂

EXPLOSION DATA:

CONTENTS ARE NOT KNOWN TO BE SENSITIVE TO MECHANICAL IMPACT OR STATIC
DISCHARGE

10. STABILITY AND REACTIVITY

THIS PRODUCT IS CONSIDERED STABLE UNDER NORMAL AND ANTICIPATED STORAGE AND HANDLING CONDITIONS. DO NOT STORE ABOVE 120 DEG. F (49 DEG. C). FOR LONGEST SHELF LIFE, AVOID STORAGE ABOVE 90 DEG. F. (32.2 DEG. C). AVOID ALCOHOLS, STRONG BASES OR AMINES AND METAL COMPOUNDS (SUCH AS SMALL PARTICLE METAL CATALYSTS).

11. TRANSPORTATION

SHIPPING INFORMATION:

CONTAINERS LESS THAN 1000 CU. CM. (1 LITER)

GROUND:

CONSUMER COMMODITY ORM-D (ON SHIPPER CARTONS)

CONSUMER COMMODITY HANDI-FOAM(R*) POLYURETHANE FOAM SEALANT (ON SHIPPING DOCUMENTS)

AIR: AEROSOLS, NON-FLAMMABLE 2.2 UN 1950 (NON-FLAMMABLE GAS LABEL)

WATER:

AEROSOLS, NON-FLAMMABLE 2.2 UN 1950 (WITH A CAPACITY OF 1000 CU. CM. OR LESS)

(NO HAZARD LABELS REQUIRED). BOXES OR CARTONS SHOULD BE MARKED (AEROSOLS UN 1950) ONLY.

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EXCEPTIONS: N/A

NOTE:

EMERGENCY RESPONSE GUIDE NUMBERS - CONSUMER COMMODITY # 171, FOR AEROSOLS

12. REGULATORY

TOXIC SUBSTANCES CONTROL ACT (TSCA)/DOMESTIC SUBSTANCES LIST (DSL):
ALL INGREDIENTS ARE LISTED ON THE TSCA INVENTORY, AS WELL AS THE CANADIAN
DOMESTIC SUBSTANCES LIST.

SARA TITLE III:
CONTAINS DIPHENYLMETHANE DIISOCYANATE (CAS #101-68-8) AND FLUOROCARBON
(HCFC) CONTAINING CHLORODIFLUOROMETHANE (CAS #75-45-6), SUBJECT TO THE
REPORTING REQUIREMENTS OF SARA TITLE III. APPLICABILITY MUST BE DETERMINED
BY THE END USER.

PROPOSITION 65:
BASED ON INFORMATION CURRENTLY AVAILABLE, THIS PRODUCT IS NOT KNOWN TO
CONTAIN DETECTABLE AMOUNTS OF ANY CHEMICALS CURRENTLY LISTED UNDER
CALIFORNIA PROPOSITION 65.

V.O.C. CONTENT:
BASED ON THE CURRENT EPA DEFINITION OF VOLATILE ORGANIC COMPOUND, THIS
PRODUCT DOES NOT HAVE ANY V.O.C. CONTENT.

13. OTHER

NFPA:
FIRE 1
HEALTH 2
REACTIVITY 1

HMIS:
FLAMMABILITY 1
HEALTH 2
REACTIVITY 1

THE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN ARE PRESENTED IN GOOD
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LAST REVISION: 05/03-6

APPROVED BY: T. EBERLING

A16150

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FOMO PRODUCTS, INC.