



SAFETY DATA SHEET

RECTORSEAL® DRAFT-BLOCK™

Expanding polyurethane foam

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name

RectorSeal® Draft-Block™

Product Codes

96500

Chemical Family

Organic

Use

Expanding foam

Manufacturer's Name

The RectorSeal Corporation
2601 Spenwick Drive
Houston, Texas 77055 USA

Date of Validation

March 23, 2017

Date of Preparation

March 23, 2017

HMIS Codes

Health	2
Flammability	4
Reactivity	1
PPI	B

Emergency Telephone No.

Chemtrec 24 Hours
(800)-424-9300 USA
(703)-527-3887 International

Technical Service Telephone No.

(800)-231-3345 or (713)-263-8001

SECTION 2 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

OSHA Hazards

Harmful by ingestion, Skin and respiratory sensitiser, Irritant

GHS Classification

Acute toxicity, Oral: Category 4

Acute toxicity, Inhalation: Category 1

Skin irritation: Category 2

Eye irritation: Category 2A

Respiratory sensitisation: Category 1

Skin sensitisation: Category 1

Specific target organ toxicity - single exposure: Category 3, Respiratory system

GHS Label elements, including precautionary statements



GHS02: Flammable

GHS04: Compressed Gas

GHS06: Toxic

GHS08: Respiratory Sensitizer/Health Hazards

Signal Word: **Danger**

Hazard Statements:

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 - May cause respiratory irritation.

Precautionary Statements:

P260 - Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P280 - Wear protective gloves.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a **POISON CENTER** or doctor/ physician.

Summary Of Acute Hazards

Danger! Extremely Flammable. Since the containers are pressurized, storage temperature should not exceed 120°F (48°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.

Exposure to people with asthma, eczema and/or allergies may aggravate those conditions. Symptoms may include coughing, wheezing, and shortness of breath. The primary adverse health effects of this material are related to the Polymeric isocyanate (MDI) component, and, to 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.

Route Of Exposure, Signs And Symptoms

INHALATION

May irritate mucous membranes with tightness in chest, coughing, or allergic asthma-like sensitivity. Extensive over exposure can lead to respiratory symptoms like bronchitis and pulmonary edema. These effects are usually reversible.

EYE CONTACT

May be irritating to eyes. Foam contact can cause physical damage due to adhesive character.

SKIN CONTACT

May cause localized irritation, reddening or swelling. Prolonged or repeated exposure may lead to sensitization and/or dermatitis.

INGESTION

May cause irritation of mucous membranes in the mouth and digestive tract.

SUMMARY OF CHRONIC HAZARDS

None known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Exposure to people with asthma, eczema and/or allergies may aggravate those conditions. Symptoms may include coughing, wheezing, and shortness of breath. Persons with cardiac arrhythmia may be at increased risk in severe exposure.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient: Polymethylenepolyphenylisocyanate

Percentage By Weight: < 25

CAS Number: 9016-87-9

EC#: 618-498-9

Ingredient: Dimethyl ether

Percentage By Weight: 1-15

CAS Number: 115-10-6

EC#: 204-065-8

Ingredient: Propane

Percentage By Weight: 5-10

CAS Number: 74-98-6

EC#: 601-003-00-5

SECTION 4 – FIRST AID MEASURES

If inhaled: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

If on skin: Use a rag to remove excess foam from skin and remove contaminated clothing. Use of 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.

If in eyes: Flush eyes with large amounts of water for 15 minutes. Get medical attention if irritation persists.

If swallowed: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

SECTION 5 – FIRE FIGHTING MEASURES

(Estimated based on liquefied petroleum gas (hydrocarbon, HC))

Explosion Data: Contents could be sensitive to mechanical impact or static discharge. Vapors released during and immediately after dispensing may ignite explosively if proper ventilation is not employed and vapor build up is allowed to occur. Extinguish or remove all sources of ignition during dispensing, until product becomes tack free or develops a skin.

Extinguishing Media

Dry chemical, carbon dioxide, halon 1211, chemical foam, or water spray if used in large quantities (water contamination will produce carbon dioxide).

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and other protective clothing.

Unusual Fire And Explosion Hazards: Temperatures above 120°F (48°C) may cause aerosol containers to burst. Cured foam is organic and, therefore, will burn in the presence of sufficient heat, oxygen and ignition sources.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled: Scrape up spills to prevent footing hazard. Dispose of material according to local, state and federal regulations.

SECTION 7 – HANDLING AND STORAGE

Precautions To Be Taken In Handling And Storing: Store in a cool, dry place. Ideal storage temperature is 60°F to 80°F (15.5°C to 26.6°C). Storage above 90°F (32.2°C) will shorten the shelf life. Protect containers from physical abuse. Protect from freezing. Since the containers are pressurized, storage temperature should not exceed 120°F (49°C) in order to avoid excessive pressure build-up and possible container rupture. Also, the foam has strong adhesive-like characteristics and will adhere to skin and other surfaces. If accidental foam contact occurs, follow the appropriate first-aid procedure described in Section 4 of this MSDS.

Other Precautions: Do not incinerate aerosol can.

KEEP OUT OF REACH OF CHILDREN.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient	Units
Polymethylenepolyphenylisocyanate	
ACGIH TLV:	N/D ppm
OSHA PEL:	N/D ppm
Dimethyl ether	
ACGIH TLV:	0.005 ppm
OSHA PEL:	0.02 ppm

Propane

ACGIH TLV: N/D
 OSHA PEL: 1000 ppm

Respiratory Protection (Specify Type): NIOSH/MSHA supplied air / SCBA if TLV exceeded.

Ventilation – Local Exhaust: Acceptable

Special: N/A

Mechanical (General): Acceptable

Other: N/A

Protective Gloves: Wear rubber gloves.

Eye Protection: Safety glasses (ANSI Z-87.1 or equivalent)

Other Protective Clothing Or Equipment: Tyvek coveralls recommended.

Work/Hygienic Practices: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling point:	The dimethyl ether component of this liquefied petroleum gas (hydrocarbon, HC) mixture boils at -13°F (-25°C). Other liquefied petroleum gas (hydrocarbon, HC) components boil between -28°F to 11°F (-33.3°C to -11.7°C). Other components boil at temperatures greater than 200°F (93.3°C).
Specific gravity (H ₂ O = 1):	Approximately 1.1 (H ₂ O = 1)
Vapor pressure (mmHg):	Contents under pressure have vapor pressure greater than 50 psig (345 Kpa). After release from container, vapor pressure is very low (not determined).
Melting point:	N/A
Vapor Density (Air = 1):	< 1
Evaporation rate (Ethyl Acetate = 1):	< 1
Appearance/Odor:	Expanding foam/Slight odor
Solubility in water:	Insoluble
Volatile Organic Compounds (VOC) Content (theoretical percentage by weight):	This product contains less than 100 g/L
Flash point:	-156°F (-68.9°C)
Lower explosion limit:	N/D
Upper explosion limit:	N/D
Aerosol flame extension:	Negative
NFPA Aerosol Level:	1

SECTION 10 – STABILITY AND REACTIVITY

Stability: This product is considered stable under normal and anticipated storage and handling conditions. Contents are not known to be sensitive to mechanical impact or static discharge.

Conditions To Avoid: Do not store above 120°F (49°C). For longest shelf life, avoid storage above 80°F (26.6°C).

Incompatibility (Materials To Avoid): Avoid alcohols, strong bases or amines and metal compounds (such as small particle metal catalysts).

Hazardous Decomposition Products: CO, CO₂, NOX, ammonia, trace HCN, HF or HCl.

Hazardous Polymerization: Will not occur.

SECTION 11 – TOXICOLOGY INFORMATION

Chronic Health Hazards

No ingredient in this product is an IARC, NTP or OSHA Lister carcinogen.

Toxicology Data

Ingredient Name

Polymethylenepolyphenylisocyanate

Oral-Rat LD50: N/D

Inhalation-Rat LC50: N/D

Dimethyl ether

Oral-Rat LD50: N/D

Inhalation-Rat LC50: N/D

Propane

Oral-Rat LD50: N/D

Inhalation-Rat LC50: N/D

SECTION 12 – ECOLOGICAL INFORMATION

Ecological Data

Ingredient Name:	Polymethylenepolyphenylisocyanate
Food Chain Concentration Potential	N/D
Waterfowl Toxicity	N/D
BOD	N/D
Aquatic Toxicity	N/D

Ingredient Name:	Dimethyl ether
Food Chain Concentration Potential	N/D
Waterfowl Toxicity	N/D
BOD	N/D
Aquatic Toxicity	N/D

Ingredient Name:	Propane
Food Chain Concentration Potential	N/D
Waterfowl Toxicity	N/D
BOD	N/D
Aquatic Toxicity	N/D

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Classification: Aerosols

Disposal Method: Empty containers can be disposed of in trash. Dispose of all liquid waste in accordance with all local, state and federal regulations.

SECTION 14 – TRANSPORTATION INFORMATION

DOT:	Limited Quantities or LTD QTY
Ocean (IMDG):	UN1950, Aerosols, Flammable, Class 2.1, Limited Quantities or LTD QTY, EMS-No: F-E, S-D
Air (IATA):	UN1950, Aerosols, Class 2.1, ERG#126

SECTION 15 – REGULATORY INFORMATION

Regulatory Data

Ingredient Name:	Polymethylenepolyphenylisocyanate
SARA 313	No
TSCA Inventory	Yes
CERCLA RQ	N/A
RCRA Code	N/A

Regulatory Data (cont.)

Ingredient Name: **Dimethyl ether**

SARA 313 Yes

TSCA Inventory Yes

CERCLA RQ N/A

RCRA Code N/A

Ingredient Name: **Propane**

SARA 313 No

TSCA Inventory Yes

CERCLA RQ N/A

RCRA Code N/A

SECTION 16 – OTHER INFORMATION

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made.

Consult RectorSeal for further information: (713) 263-8001



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Signal Word: **Danger**

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Precautionary Statements:

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P280 - Wear protective gloves.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a **POISON CENTER** or doctor/ physician.

Summary Of Acute Hazards

Danger! Extremely Flammable. Since the containers are pressurized, storage temperature should not exceed 120°F (48°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.

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EYE CONTACT

May be irritating to eyes. Foam contact can cause physical damage due to adhesive character.

SKIN CONTACT

May cause localized irritation, reddening or swelling. Prolonged or repeated exposure may lead to sensitization and/or dermatitis.

INGESTION

May cause irritation of mucous membranes in the mouth and digestive tract.

SUMMARY OF CHRONIC HAZARDS

None known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Exposure to people with asthma, eczema and/or allergies may aggravate those conditions. Symptoms may include coughing, wheezing, and shortness of breath. Persons with cardiac arrhythmia may be at increased risk in severe exposure.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient: Polymethylenepolyphenylisocyanate

Percentage By Weight: < 25

CAS Number: 9016-87-9

EC#: 618-498-9

Ingredient: Dimethyl ether

Percentage By Weight: 1-15

CAS Number: 115-10-6

EC#: 204-065-8

Ingredient: Propane

Percentage By Weight: 5-10

CAS Number: 74-98-6

EC#: 601-003-00-5

SECTION 4 – FIRST AID MEASURES

If inhaled: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

If on skin: Use a rag to remove excess foam from skin and remove contaminated clothing. Use of 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.

If in eyes: Flush eyes with large amounts of water for 15 minutes. Get medical attention if irritation persists.

If swallowed: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

SECTION 5 – FIRE FIGHTING MEASURES

(Estimated based on liquefied petroleum gas (hydrocarbon, HC))

Explosion Data: Contents could be sensitive to mechanical impact or static discharge. Vapors released during and immediately after dispensing may ignite explosively if proper ventilation is not employed and vapor build up is allowed to occur. Extinguish or remove all sources of ignition during dispensing, until product becomes tack free or develops a skin.

Extinguishing Media

Dry chemical, carbon dioxide, halon 1211, chemical foam, or water spray if used in large quantities (water contamination will produce carbon dioxide).

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and other protective clothing.

Unusual Fire And Explosion Hazards: Temperatures above 120°F (48°C) may cause aerosol containers to burst. Cured foam is organic and, therefore, will burn in the presence of sufficient heat, oxygen and ignition sources.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled: Scrape up spills to prevent footing hazard. Dispose of material according to local, state and federal regulations.

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Precautions To Be Taken In Handling And Storing: Store in a cool, dry place. Ideal storage temperature is 60°F to 80°F (15.5°C to 26.6°C). Storage above 90°F (32.2°C) will shorten the shelf life. Protect containers from physical abuse. Protect from freezing. Since the containers are pressurized, storage temperature should not exceed 120°F (49°C) in order to avoid excessive pressure build-up and possible container rupture. Also, the foam has strong adhesive-like characteristics and will adhere to skin and other surfaces. If accidental foam contact occurs, follow the appropriate first-aid procedure described in Section 4 of this MSDS.

Other Precautions: Do not incinerate aerosol can.

KEEP OUT OF REACH OF CHILDREN.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient	Units
Polymethylenepolyphenylisocyanate	
ACGIH TLV:	N/D ppm
OSHA PEL:	N/D ppm
Dimethyl ether	
ACGIH TLV:	0.005 ppm
OSHA PEL:	0.02 ppm

Propane

ACGIH TLV: N/D
 OSHA PEL: 1000 ppm

Respiratory Protection (Specify Type): NIOSH/MSHA supplied air / SCBA if TLV exceeded.

Ventilation – Local Exhaust: Acceptable

Special: N/A

Mechanical (General): Acceptable

Other: N/A

Protective Gloves: Wear rubber gloves.

Eye Protection: Safety glasses (ANSI Z-87.1 or equivalent)

Other Protective Clothing Or Equipment: Tyvek coveralls recommended.

Work/Hygienic Practices: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling point:	The dimethyl ether component of this liquefied petroleum gas (hydrocarbon, HC) mixture boils at -13°F (-25°C). Other liquefied petroleum gas (hydrocarbon, HC) components boil between -28°F to 11°F (-33.3°C to -11.7°C). Other components boil at temperatures greater than 200°F (93.3°C).
Specific gravity (H ₂ O = 1):	Approximately 1.1 (H ₂ O = 1)
Vapor pressure (mmHg):	Contents under pressure have vapor pressure greater than 50 psig (345 Kpa). After release from container, vapor pressure is very low (not determined).
Melting point:	N/A
Vapor Density (Air = 1):	< 1
Evaporation rate (Ethyl Acetate = 1):	< 1
Appearance/Odor:	Expanding foam/Slight odor
Solubility in water:	Insoluble
Volatile Organic Compounds (VOC) Content (theoretical percentage by weight):	This product contains less than 100 g/L
Flash point:	-156°F (-68.9°C)
Lower explosion limit:	N/D
Upper explosion limit:	N/D
Aerosol flame extension:	Negative
NFPA Aerosol Level:	1

SECTION 10 – STABILITY AND REACTIVITY

Stability: This product is considered stable under normal and anticipated storage and handling conditions. Contents are not known to be sensitive to mechanical impact or static discharge.

Conditions To Avoid: Do not store above 120°F (49°C). For longest shelf life, avoid storage above 80°F (26.6°C).

Incompatibility (Materials To Avoid): Avoid alcohols, strong bases or amines and metal compounds (such as small particle metal catalysts).

Hazardous Decomposition Products: CO, CO₂, NOX, ammonia, trace HCN, HF or HCl.

Hazardous Polymerization: Will not occur.

SECTION 11 – TOXICOLOGY INFORMATION

Chronic Health Hazards

No ingredient in this product is an IARC, NTP or OSHA Lister carcinogen.

Toxicology Data

Ingredient Name

Polymethylenepolyphenylisocyanate

Oral-Rat LD50: N/D

Inhalation-Rat LC50: N/D

Dimethyl ether

Oral-Rat LD50: N/D

Inhalation-Rat LC50: N/D

Propane

Oral-Rat LD50: N/D

Inhalation-Rat LC50: N/D

SECTION 12 – ECOLOGICAL INFORMATION

Ecological Data

Ingredient Name:	Polymethylenepolyphenylisocyanate
Food Chain Concentration Potential	N/D
Waterfowl Toxicity	N/D
BOD	N/D
Aquatic Toxicity	N/D

Ingredient Name:	Dimethyl ether
Food Chain Concentration Potential	N/D
Waterfowl Toxicity	N/D
BOD	N/D
Aquatic Toxicity	N/D

Ingredient Name:	Propane
Food Chain Concentration Potential	N/D
Waterfowl Toxicity	N/D
BOD	N/D
Aquatic Toxicity	N/D

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Classification: Aerosols

Disposal Method: Empty containers can be disposed of in trash. Dispose of all liquid waste in accordance with all local, state and federal regulations.

SECTION 14 – TRANSPORTATION INFORMATION

DOT:	Limited Quantities or LTD QTY
Ocean (IMDG):	UN1950, Aerosols, Flammable, Class 2.1, Limited Quantities or LTD QTY, EMS-No: F-E, S-D
Air (IATA):	UN1950, Aerosols, Class 2.1, ERG#126

SECTION 15 – REGULATORY INFORMATION

Regulatory Data

Ingredient Name:	Polymethylenepolyphenylisocyanate
SARA 313	No
TSCA Inventory	Yes
CERCLA RQ	N/A
RCRA Code	N/A

Regulatory Data (cont.)

Ingredient Name: **Dimethyl ether**

SARA 313 Yes

TSCA Inventory Yes

CERCLA RQ N/A

RCRA Code N/A

Ingredient Name: **Propane**

SARA 313 No

TSCA Inventory Yes

CERCLA RQ N/A

RCRA Code N/A

SECTION 16 – OTHER INFORMATION

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