Safety Data Sheet

OR 60BM, Part A

Section 1 – Identification

Oak Ridge Foam & Coating Systems, Inc
575 Commercial Ave
Green Lake, WI 54941

Emergency Telephone: (800) 424-9300 CHEMTREC
800-625-9577 Oak Ridge Foam & Coating Systems, Inc
BOTH NUMBERS ARE AVAILABLE DAYS, NIGHTS, WEEKENDS, & HOLIDAYS

Section 2 – Hazards Identification

GHS Classification

Acute toxicity (inhalation):	Category 4
Specific target organ toxicity-single exposure:	Category 3 (Respiratory system)
Respiratory sensitization:	Category 1
Skin irritation:	Category 2
Skin sensitization:	Category 1
Eye irritation:	Category 2B

GHS Label Elements

Hazard pictograms:

Signal word: Danger

Hazard Statements: Causes skin and eye irritation.
May cause an allergic skin reaction.
Harmful if inhaled.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statements: **Prevention:**
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves.
In case of inadequate ventilation wear respiratory protection.

Response:
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
Take off contaminated clothing and wash before reuse.
Storage:
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Disposal:
Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards: None known.

Section 3 – Hazards Identification

Hazardous Components

Weight Percent	Components	CAS-No.
50-70%	4,4'-methylenediphenyl diisocyanate	101-68-8
30-50%	1,3-Butanediol, polymer with 1,1'-methylenebis[4-isocyanatobenzene], [(1-methyl-1,2-ethanediyl)bis (oxy)]bis[propanol] and 1,2-propanediol	70644-57-4
20-30%	Homopolymer of methylenediphenyl diisocyanate	25686-28-6
0.1-0.25%	2,6-di-tert-butyl-p-cresol	128-37-0

The specific chemical identity and/or exact percentage of component(s) have been withheld as a trade secret.

Section 4 – First Aid Measures

General advice: Move out of dangerous area.
Do not leave the victim unattended.
Get medical attention immediately if symptoms occur.
Show this safety data sheet to the doctor in attendance.

If inhaled: If breathed in, move person into fresh air.
Call a physician or poison control center immediately.
Keep patient warm and at rest.
Keep respiratory tract clear.
If breathing is difficult, give oxygen.
If breathing is irregular or stopped, administer artificial respiration.
If unconscious, place in recovery position and seek medical advice.
Consult a physician immediately if symptoms such as shortness of breath or asthma is observed.
A hyper-reactive response to even minimal concentrations of Diisocyanates may develop in sensitized persons.
The exposed person may need to be kept under medical surveillance for 48 hours.
LC50 (rat): ca. 490 mg/m³ (4 hours): using experimentally produced respirable aerosol having aerodynamic diameter <5microns.

In case of skin contact: In case of contact, immediately flush skin with soap and plenty of water.
Take off contaminated clothing and shoes immediately.
Wash contaminated clothing before reuse.
Thoroughly clean shoes before reuse.
Call a physician if irritation develops or persists.
An MDI study has demonstrated that a polyglycol-based skin cleanser (such as D-TamTM, PEG-400) or corn oil may be more effective than soap and water.

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed: Gently wipe or rinse the inside of the mouth with water.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Keep respiratory tract clear.
Keep at rest.
If a person vomits when lying on his back, place him in the recovery position.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed: Severe allergic skin reactions, bronchiospasm and anaphylactic shock
This product is a respiratory irritant and potential respiratory sensitizer: repeated inhalation of vapor or aerosol at levels above the occupational exposure limit could cause respiratory sensitization.
Symptoms may include irritation to the eyes, nose, throat and lungs, possibly combined with dryness of the throat, tightness of chest and difficulty in breathing.
The onset of the respiratory symptoms may be delayed for several hours after exposure.
A hyper-reactive response to even minimal concentrations of MDI may develop in sensitized persons.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
First Aid responders should pay attention to self-protection and use the recommended protective clothing

Notes to physician: Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.
The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

Section 5 – Fire Fighting Measures

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Foam

Carbon dioxide (CO2)
Dry powder

Unsuitable extinguishing media: Water may be used if no other available and then in copious quantities. Reaction between water and hot isocyanate may be vigorous.

Specific hazards during firefighting: Do not allow run-off from fire-fighting to enter drains or water courses.
The pressure in sealed containers can increase under the influence of heat.
Exposure to decomposition products may be a hazard to health.

Hazardous combustion Products: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
Nitrogen oxides (NOx)
Hydrogen cyanide (hydrocyanic acid)

Specific extinguishing methods: Cool containers/tanks with water spray.

Further information: Standard procedure for chemical fires.
Due to reaction with water producing CO2-gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Prevent fire extinguishing water from contaminating surface water or the ground water system.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters: Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire-fighting gear.

Section 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:
Immediately evacuate personnel to safe areas.
Use personal protective equipment.
If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.
Ensure adequate ventilation.
Keep people away from and upwind of spill/leak.
Only qualified personnel equipped with suitable protective equipment may intervene.
For additional precautions and advice on safe handling, see section 7.
Never return spills in original containers for re-use.
Make sure that there is a sufficient amount of neutralizing/ absorbent material near the storage area.
The danger areas must be delimited and identified using relevant warning and safety signs.
Treat recovered material as described in the section "Disposal considerations".
For disposal considerations see section 13.

Environmental precautions:

Do not allow uncontrolled discharge of product into the environment.
Do not allow material to contaminate ground water system.
Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
Local authorities should be advised if significant spillages cannot be contained.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up:

Clean-up methods - small spillage
Contain spillage, soak up with non-combustible absorbent
material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Clean contaminated surface thoroughly.
Sweep up or vacuum up spillage and collect in suitable container for disposal.
Neutralize small spillages with decontaminant.
The compositions of liquid decontaminants are given in Section 16.
Remove and dispose of residues.
Clean-up methods - large spillage
If the product is in its solid form:
Spilled MDI flakes should be picked up carefully.
The area should be vacuum cleaned to remove remaining dust particles completely.
If the product is in its liquid form:
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Leave to react for at least 30 minutes.
Shovel into open-top drums for further decontamination.
Wash the spillage area with water.
Test atmosphere for MDI vapor.
Keep in suitable, closed containers for disposal.

Section 7 – Storage and Handling

Technical measures: Ensure that eyewash stations and safety showers are close to the workstation location.

Local/Total ventilation: Use only with adequate ventilation.

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

Advice on safe handling: For personal protection see section 8.

Avoid formation of aerosol.
Do not breathe vapors or spray mist.
Do not breathe vapors/dust.
Do not swallow.
Do not get in eyes or mouth or on skin.
Do not get on skin or clothing.
Avoid exposure - obtain special instructions before use.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.

Keep container closed when not in use.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Conditions for safe storage: Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep in properly labelled containers.
Observe label precautions.
Protect from moisture.
Electrical installations / working materials must comply with the technological safety standards.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Materials to avoid: Acids
Amines
Bases
Metals
water

Section 8 – Exposure Controls/Personal Protection

Components with workplace control parameters

Components	CAS-No.	Value Type (Form of exposure)	Control parameters / Permissible concentration	Basis
4,4'-methylenediphenyl diisocyanate	101-68-8	TWA	0.005 ppm	ACGIH
2,6-di-tert-butyl-p-cresol	128-37-0	TWA (Inhalable fraction and vapor)	2 mg/m3	ACGIH

Personal protective equipment

Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hand protection Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Protective gloves should be worn when handling freshly made polyurethane products to avoid contact with trace residual materials which may be hazardous in contact with skin.
Use chemical resistant gloves classified under Standard EN374: protective gloves against chemicals and microorganisms. Examples of glove materials that might provide suitable protection include: Butyl rubber, Chlorinated polyethylene, Polyethylene, Ethyl vinyl alcohol copolymers laminated (“EVAL”), Polychloroprene (Neoprene*), Nitrile/butadiene rubber (“nitrile” or “NBR”), Polyvinyl chloride (“PVC” or “vinyl”), Fluoroelastomer (Viton*).

When prolonged or frequently repeated contact may occur, a glove with protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN374) is recommended.

When only brief contact is expected, a glove with protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN374) is recommended. Contaminated gloves should be decontaminated and disposed of.

Notice: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: other chemicals that may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as instructions/specifications provided by the glove supplier.

Eye protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Chemical splash goggles.
Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.
Please follow all applicable local/national requirements when selecting protective measures for a specific workplace.
Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection: Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Recommended:
Overall (preferably heavy cotton) or Tyvek-Pro Tech 'C', Tyvek Pro 'F' disposable coverall.

Protective measures: Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Ensure that eye flushing systems and safety showers are located close to the working place.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.
Wash face, hands and any exposed skin thoroughly after handling.
Remove contaminated clothing and protective equipment before entering eating areas.
When using do not eat, drink or smoke.
Contaminated work clothing should not be allowed out of the workplace.
Wash hands before breaks and immediately after handling the product.
Wash hands before breaks and at the end of workday.

Section 9 – Physical Properties

Appearance:	liquid
Color:	No data is available on the product itself.
Odor:	No data is available on the product itself.
Odor Threshold:	No data is available on the product itself.
pH:	No data is available on the product itself.
Melting point/freezing point:	-16.5 - -12.3 °C Method: Melting / Freezing Temperature
Boiling point:	No data is available on the product itself.
Flash point:	> 210 °C Method: Flash-Point, closed cup
Evaporation rate:	No data is available on the product itself.
Flammability (solid, gas):	No data is available on the product itself.
Flammability (liquids):	No data is available on the product itself.
Upper explosion limit:	No data is available on the product itself.
Lower explosion limit:	No data is available on the product itself.
Vapor pressure:	0.0000245 hPa (20 °C) Method: Vapor Pressure
Relative vapor density:	No data is available on the product itself.
Relative density:	No data is available on the product itself.
Density:	1.23 g/cm3 (20 °C) Method: Relative Density
Solubility(ies)	
Water solubility	
Solubility in other solvents:	No data is available on the product itself.
Partition coefficient: n-octanol/water:	log Pow: 15.98 (20 °C) GLP: no
Auto-ignition temperature:	No data is available on the product itself.
Thermal decomposition:	No data is available on the product itself.
Self-Accelerating decomposition temperature (SADT):	No data is available on the product itself.
Viscosity	
Viscosity, kinematic:	370 mm2/s (20 °C)
Explosive properties:	No data is available on the product itself.
Oxidizing properties:	None.
Particle size:	No data is available on the product itself.

Section 10 – Stability and Reactivity

Reactivity:	No dangerous reaction known under conditions of normal use.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	Reaction with water (moisture) produces CO2-gas. Exothermic reaction with materials containing active hydrogen groups. The reaction becomes progressively more vigorous and can be violent at higher temperatures if the miscibility of the reaction partners is good or is supported by stirring or by the presence of solvents. MDI is insoluble with, and heavier than water and sinks to the bottom but reacts slowly at the interface. A solid water-insoluble layer of polyurea is formed at the interface by liberating carbon dioxide gas.

Conditions to avoid: Extremes of temperature and direct sunlight.
Exposure to air or moisture over prolonged periods.

Incompatible materials: Acids
Amines
Bases
Metals
water

Hazardous decomposition products:
Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke. Hydrocarbons Hydrogen cyanide (hydrocyanic acid) Burning produces noxious and toxic fumes.

Section 11 – Toxicological Information

Information on likely routes of exposure: No data is available on the product itself.

Acute toxicity

Acute oral toxicity - Product: LD50 (Rat, female): > 5,000 mg/kg
Method: OECD Test Guideline 425
GLP: yes

Acute inhalation toxicity - Product: Acute toxicity estimate: 1.38 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity - Product: LD50 (Rabbit, male and female): > 9,400 mg/kg
Method: OECD Test Guideline 402
GLP: no

Acute toxicity (other routes of administration): No data available

Skin corrosion/irritation

Product:
Species: Rabbit
Assessment: Irritant
Method: OECD Test Guideline 404
Result: Irritating to skin.
GLP: yes

Serious eye damage/eye irritation

Components:
4,4'-methylenediphenyl diisocyanate:
Species: Rabbit
Result: Mild eye irritation

1,3-Butanediol, polymer with 1,1'-methylenebis[4-isocyanatobenzene], [(1-methyl-1,2-ethanediyl) bis(oxy)] bis[propanol] and 1,2-propanediol:
Result: Mild eye irritation

Homopolymer of methylene diphenyl diisocyanate:
Species: Rabbit
Result: Mild eye irritation
Method: OECD Test Guideline 405

2,6-di-tert-butyl-p-cresol:
Species: Rabbit
Assessment: No eye irritation

Respiratory or skin sensitization

Product:

Exposure routes: Respiratory Tract
Species: Guinea pig
Result: Causes sensitization.

Exposure routes: Skin
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Causes sensitization.

Components:

4,4'-methylenediphenyl diisocyanate:
Assessment: May cause sensitization by inhalation and skin contact.

Germ cell mutagenicity

Product:

Genotoxicity in vitro:

Concentration: ca 5000 ug/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Product:

Genotoxicity in vivo:

Application Route: Inhalation
Exposure time: 3 Weeks
Dose: 118 mg/m3
Method: OECD Test Guideline 474
Result: negative
GLP: yes

Carcinogenicity

Product:

Remarks: Rats have been exposed for two years to a respirable aerosol of polymeric MDI which resulted in a chronic pulmonary irritation at high concentrations. Only at the top level (6 mg/m3), there was a significant incidence of a benign tumor of the lung (adenoma) and one malignant tumor (adenocarcinoma). There were no lung tumors at 1 mg/m3 and no effects at 0.2 mg/m3. Overall, the tumor incidence, both benign and malignant, and the number of animals with the tumors were not different from controls. The increased incidence of lung tumors is associated with prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung, which occurred throughout the study. In the absence of prolonged exposure to high concentrations leading to chronic irritation and lung damage, it is highly unlikely that tumor formation will occur.

Species: Rat, (male and female)
Application Route: Inhalation
Exposure time: 24 month(s)
Dose: 1 mg/m³
Frequency of Treatment: 5 daily
Method: OECD Test Guideline 453
Result: negative

Carcinogenicity - Assessment: No data available

IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential
carcinogen by ACGIH.

OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity
Components:
2,6-di-tert-butyl-p-cresol:
Effects on fertility: Species: Rat, male and female
Application Route: Oral

Product:
Effects on fetal development: Species: Rat, male and female
Application Route: Inhalation
General Toxicity Maternal: No observed adverse effect level: 4 mg/m³
Method: OECD Test Guideline 414
Result: No teratogenic effects
GLP: yes

Reproductive toxicity - Assessment: No data available

STOT - single exposure
Components: 4,4'-methylenediphenyl diisocyanate:
Exposure routes: Inhalation
Target Organs: Respiratory Tract
Assessment: May cause respiratory irritation.

1,3-Butanediol, polymer with 1,1'-methylenebis[4-isocyanatobenzene], [(1-methyl-1,2-ethanediyl) bis(oxy)] bis[propanol] and 1,2-propanediol:
Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Homopolymer of methylene diphenyl diisocyanate:
Exposure routes: Inhalation
Target Organs: Respiratory Tract
Assessment: May cause respiratory irritation.

STOT - repeated exposure
No data available

Repeated dose toxicity

Product: Species: Rat, male and female
: 0.2 mg/m3
Test atmosphere: dust/mist
Exposure time: 2 yr.
Number of exposures: 5 d
Method: OECD Test Guideline 453

Species: Rat, male and female
: 1 mg/m3
Test atmosphere: dust/mist
Exposure time: 2,160 h
Number of exposures: 5 d
Method: OECD Test Guideline 413

Repeated dose toxicity – Assessment: No data available

Aspiration toxicity

No data available

Experience with human exposure

General Information: No data available
Inhalation: No data available
Skin contact: No data available
Eye contact: No data available
Ingestion: No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

Ingestion: No data available

Section 12 – Ecological Information

Ecotoxicity

Toxicity to fish - Product: LC50 (Brachydanio rerio (zebrafish)): > 1,000 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 203
GLP: no

Toxicity to daphnia
and other aquatic invertebrates
- Product: EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 24 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202
GLP: no

Toxicity to algae - Product:	EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 1,640 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 201 GLP: yes

Components:

2,6-di-tert-butyl-p-cresol:	
M-Factor (Acute aquatic toxicity):	1
Toxicity to fish (Chronic toxicity) - Product:	GLP: no
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) - Product:	NOEC (Brachydanio rerio (zebrafish)): >= 10 mg/l Exposure time: 21 d Test Type: semi-static test Test substance: Fresh water Method: OECD Test Guideline 211
M-Factor (Chronic aquatic toxicity):	No data available
Toxicity to microorganisms - Product:	EC50 (activated sludge): > 100 mg/l Exposure time: 3 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 209 GLP: no
Toxicity to soil dwelling organisms - Product:	EC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg Exposure time: 336 h Method: OECD Test Guideline 207 GLP: yes
Sediment toxicity:	No data available
Toxicity to terrestrial organisms:	No data available
Ecotoxicology Assessment	
Acute aquatic toxicity:	No data available
Chronic aquatic toxicity:	No data available
Toxicity Data on Soil:	No data available
Other organisms relevant to the environment:	No data available
Plant toxicity:	No data available

Persistence and degradability

Biodegradability - Product:	Inoculum: Domestic sewage Concentration: 30 mg/l Result: Not biodegradable Biodegradation: 0 % Exposure time: 28 d Method: Inherent Biodegradability: Modified MITI Test (II)
Biochemical Oxygen Demand (BOD):	No data available
Chemical Oxygen Demand (COD):	No data available
BOD/COD:	No data available
ThOD:	No data available

BOD/ThOD:	No data available
Dissolved organic carbon (DOC):	No data available
Physico-chemical removability:	No data available
Stability in water - Product:	Method: No information available. GLP: yes Remarks: see user defined free text Method: No information available. GLP: no Remarks: see user defined free text
Photodegradation:	No data available
Impact on Sewage Treatment:	No data available

Bioaccumulative potential

Bioaccumulation - Product:	Species: Cyprinus carpio (Carp) Bioconcentration factor (BCF): 200 GLP: yes Remarks: Bioaccumulation is unlikely.
Partition coefficient: n-octanol/ water - Product:	log Pow: 15.98 (20 °C) GLP: no

Mobility in soil

Mobility:	No data available

Components:

2,6-di-tert-butyl-p-cresol:	
Distribution among environmental compartments:	Koc: 8183
Stability in soil:	No data available

Other adverse effects

Environmental fate and pathways:	No data available
Results of PBT and vPvB assessment:	No data available
Endocrine disrupting potential:	No data available
Adsorbed organic bound halogens (AOX):	No data available

Hazardous to the ozone layer

Ozone-Depletion Potential:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information:	No data available
Global warming potential (GWP):	No data available

Section 13 – Disposal Consideration

Waste Disposal Method:

Waste from residues:	Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

Section 14 – Transportation Information

International Regulations

IATA
Not regulated as dangerous goods

IMDG
Not regulated as dangerous goods

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplies.

National Regulations

DOT Classification

UN/ID/NA Number:	NA3082
Proper shipping name:	OTHER REGULATED SUBSTANCES, LIQUID, N.O.S. (Methylene Diphenyl Diisocyanate)
Class:	9
Packing group:	III
Labels:	CLASS 9
ERG Code:	171
Marine pollutant:	no

Section 15 – Regulatory Information

EPCRA – Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No	Component RQ (lbs.)	Calculated product RQ (lbs.)
4,4'-methylenediphenyl diisocyanate	101-68-8	5000	9081
Acetone	67-64-1	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards: Acute Health Hazard

SARA 313: The following components are subject to reporting levels established by SARA Title III, Section 313:

4,4'-methylenediphenyl diisocyanate 101-68-8 50 - 70 %

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
4,4'-methylenediphenyl diisocyanate 101-68-8 55.055 %

California Prop. 65
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

CH INV:	The formulation contains substances listed on the Swiss Inventory, On the inventory, or in compliance with the inventory
DSL:	All components of this product are on the Canadian DSL
AICS:	Not in compliance with the inventory
NZIoC:	Not in compliance with the inventory
ENCS:	On the inventory, or in compliance with the inventory
KECI:	Not in compliance with the inventory
PICCS:	Not in compliance with the inventory
IECSC:	Not in compliance with the inventory
TCSI:	Not in compliance with the inventory
TSCA:	On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

TSCA - 5(a) Significant New Use Rule List of Chemicals

No substances are subject to a Significant New Use Rule.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No substances are subject to TSCA 12(b) export notification requirements.

Section 16 – Other Information

The method of hazard communication for Oak Ridge Foam & Coating Systems, Inc is comprised of Product Labels and Safety Data Sheets.

Contact:	Product Safety Department
Telephone:	800-625-9577
Version Date:	04/02/2015
SDS Version:	1.0

This information is furnished without warranty, expressed or implied. This information is believed to be accurate to the best knowledge of Oak Ridge Foam & Coating Systems, Inc. The information in this SDS relates only to the specific material designated herein. Oak Ridge Foam & Coating Systems, Inc assumes no legal responsibility for use of or reliance upon the information in this SDS.