The following Bostik, Inc. product

L7132K (ADH 7132K)

is a kit, comprised of the following two components:

BOSC24T (BOSCODUR 24T)
L7132R (ADH 7132R)

The Material Safety Data Sheets for the two components follow this cover sheet.

Bostik, Inc.
Regulatory Affairs

Bostik

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product name	**BOSC24T**
Product name(s) covered	See Section 16 for Product Names Covered.
MSDS name	BOSCODUR 24T LB
CAS number	Mixture
Generic description	Solvent Based Adhesive
Manufacturer	Bostik, Inc. 211 Boston Street Middleton, MA 01949 USA
24 hour emergency assistance	Telephone: 1-800-227-0332
General assistance	Telephone: 1-978-777-0100
MSDS assistance	Telephone: 1-978-750-7208

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component(s)	CAS #	Percent
Toluene	108-88-3	30 - 60
Methylene Diphenyl Isocyanate (MDI)	101-68-8	15 - 40
Polymethylene Polyphenylene Isocyanate	9016-87-9	15 - 40
Benzene	71-43-2	0 - 0.1

3. HAZARDS IDENTIFICATION

Emergency overview

Liquid and vapors are flammable. Contact may cause skin and eye irritation. Mist may cause nose and throat irritation. Ingestion will cause nausea, vomiting, pain, upset stomach, and diarrhea. Thermal decomposition/burning may produce toxic gases and fumes. Closed containers may rupture when exposed to high temperatures, or when the product has been contaminated with water.

Avoid breathing hot mists and vapors. This product contains a respiratory and skin sensitizer. Causes respiratory tract irritation and may cause allergic respiratory reaction. May cause permanent respiratory damage. Product vapors are potentially irritating to skin. May cause allergic skin reaction and dermatitis.

Potential health effects

Skin

This product may cause irritation to the skin. Prolonged or repeated contact with this product may dry and/or defat the skin. This product may be harmful if it is absorbed through the skin. Isocyanates may react with skin protein and moisture to cause itching, reddening, swelling, scaling or blistering. Individuals previously sensitized to this material may experience these symptoms from exposure to very small amounts of liquid or vapor.

Eyes

Liquid or vapors may irritate the eyes. Prolonged or repeated contact may worsen irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May lead to permanent damage if not treated promptly. May cause temporary corneal injury.

Inhalation

This product may cause irritation to the respiratory system. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination. Single large does, and/or repeated exposures, may lead to sensitization to diisocyanates or polyisocyanates (asthma or asthma-like symptoms), causing an individual to experience adverse effects at exposure levels well below exposure limits or guidelines. Symptoms may include chest tightness, wheezing, shortness of breath, coughing or asthmatic attack, and may be delayed up to several hours. Extreme asthmatic reactions can be life threatening. Once sensitized, an individual may experience adverse symptoms upon exposure to dust, cold air or other irritants. Sensitization can last several months, years or be permanent in some cases.

Ingestion

This product is harmful if swallowed. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause irritation and corrosive action in the mouth, throat and digestive tract.

Target organs

Lungs, skin and eyes. The lungs and skin may be targeted and damaged by components of this product.

Signs and symptoms of overexposure	Signs and symptoms of overexposure to this product include headache, irritation of upper respiratory tract, asthmatic symptoms, chest tightness, breathing difficulty, coughing, sore throat, eye irritation, skin irritation and/or diarrhea.
Hazard statements	This product contains Methylene Diphenyl Isocyanate (MDI) which is a potential skin sensitizer and has been shown to alter cells in certain experiments. Although inconclusive, these cellular changes are thought to indicate potential carcinogenicity. Risk to your health depends on duration and concentration of exposure.

4. FIRST AID MEASURES

First aid

Skin	Remove contaminated clothing to prevent further skin exposure and dispose of properly. In situations involving considerable skin contact, place the contaminated person in a deluge shower for at least 15 minutes. For minor exposures, wash thoroughly with soap and clean water. Get medical attention if irritation persists. For severe exposure, immediately get under a safety shower and begin rinsing.
Eye	In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. If irritation persists get medical attention.
Inhalation	Move person to non-contaminated air. Call a physician if symptoms develop or persist. Administer oxygen or artificial respiration as needed.
Ingestion	If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.
Notes to physician	This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately. If overexposure to the solvents in this product is suspected, testing should include nervous system and brain effects including recent memory, mood, concentration, headaches and altered sleep patterns. Liver and kidney function should be evaluated. Eyes: Stain for evidence of corneal injury. If cornea is burned, apply antibiotic/steroid preparation as needed. Skin: This product contains a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. Ingestion: Treat symptomatically. Inhalation: This material contains a known pulmonary sensitizer. Any individual experiencing dermal or pulmonary sensitization should be removed from exposure to any diisocyanate. May aggravate existing heart conditions, particularly those with abnormal heart rhythms.

5. FIRE FIGHTING MEASURES

Hazardous combustion products	Additional decomposition products include oxides of nitrogen, amines, hydrogen cyanide and isocyanate-containing compounds.
Extinguishing media	Use dry chemical, carbon dioxide, or foam. Use water spray on large fires. Use water to cool fire-exposed containers and to protect personnel. Do not direct a solid stream of water or foam into hot, burning pools; this may result in frothing and increase fire intensity.
Basic fire fighting procedures	Empty containers may retain product residue including Flammable or Explosive vapors. Do not cut, drill, grind, or weld near full, partially full, or empty product containers.
Sensitivity to mechanical impact	None Known
Sensitivity to static discharge	Sparks generated by static discharge may ignite this product or its vapors. All containers and equipment must be bonded or grounded to minimize risk.
Unusual fire & explosion hazards	During a fire, irritating and highly toxic gases may be generated during combustion or decomposition. Vapors may be heavier than air and may travel long distances along the ground before igniting back to vapor source. High temperatures can cause sealed containers to rupture due to a buildup of internal pressures. Cool with water.
Fire fighting equipment/instructions	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Firefighters should wear NFPA compliant structural fire fighting protective equipment, including a self-contained breathing apparatus, helmet, hood, boots and gloves. Avoid contact with isocyanates. During a fire, isocyanate vapors and other irritating and highly toxic gases may be produced.
Flash point	41 °F (5 °C)

6. ACCIDENTAL RELEASE MEASURES

Emergency action	Evacuate the area promptly and keep upwind of the spilled material. Isolate the spill area to prevent people from entering. Wear appropriate protective equipment and clothing during clean-up.
Containment	Isolate spill area. Stop discharge if safe to do so. Stop material from contaminating soil or from entering sewers or water streams. Liquid spills: Cover spills with absorbent clay or sawdust and collect material in open container and neutralize with a solution containing 2% liquid detergent, 3% concentrated ammonium hydroxide and 95% water. Wash spill area clean with the neutralization solution. Remove container to a safe place, cover loosely and allow to stand for 24 to 48 hours letting evolved carbon dioxide escape. Pellet or chip spill: Collect and contain for salvage or disposal. Molten adhesive spill: Placard hot material, allow to cool and remove. Collect and contain for salvage or disposal.
Reporting	See Federal reporting requirements listed in Section 15. We recommend you contact local authorities to determine if there may be other local reporting requirements.

7. HANDLING & STORAGE

For Commercial Use Only - Not Packaged or Labeled for Home Use!

Handling	Keep this product from heat, sparks, or open flame. Avoid getting this material into contact with your skin and eyes. Wash hands thoroughly after handling, especially before eating, drinking, smoking, and using restroom facilities. Wash contaminated goggles, face shields, and gloves. Professionally launder contaminated clothing before re-use. Do not reuse the empty container. Do not breathe vapors, mists or dusts. Do not breathe fumes generated when the material is overheated or burned. Use adequate ventilation. Wear respiratory protection if the material is heated, sprayed, used in a confined space or if exposure limit is exceeded. This product can produce asthmatic sensitization. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must avoid fumes from this product. Wear appropriate protective equipment to avoid contact with skin and eyes.
Storage	Keep the container tightly closed and in a cool, well-ventilated place. Do not handle or store near an open flame, heat or other sources of ignition. All containers must be bonded or grounded to minimize risk.
Empty container precaution	Attention! Follow label warnings even after container is emptied since empty containers may retain product residues. Do not reuse empty container without professional cleaning for food, clothing, or products for human or animal consumption, or where skin contact can occur. Do not heat or cut empty container with electric or gas torch.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls	Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product. Additional area ventilation or local exhaust may be required to maintain air concentrations below recommended exposure limits. Explosion proof exhaust ventilation should be used.
Eye protection	Wear safety glasses; chemical goggles (if splashing is possible). Contact lenses should not be worn.
Skin and body protection	Impervious gloves should be used at all times when handling this product. Recommended gloves include rubber, neoprene, nitrile or viton. Use of protective coveralls and long sleeves is recommended.
Respiratory protection	Avoid breathing vapor and/or mists. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection. High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA) or a supplied air respirator.
General	Eyewash fountains and emergency showers should be readily available. Use good industrial hygiene practices in handling this material.

Exposure limits

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Benzene	71-43-2	0.5 ppm TWA
Methylene Diphenyl Isocyanate (MDI)	101-68-8	0.005 ppm TWA
Toluene	108-88-3	50 ppm TWA

NIOSH - Pocket Guide - TWAs

Benzene	71-43-2	0.1 ppm TWA
Methylene Diphenyl Isocyanate (MDI)	101-68-8	0.005 ppm TWA; 0.05 mg/m3 TWA
Toluene	108-88-3	100 ppm TWA; 375 mg/m3 TWA

OSHA - Final PELs - Time Weighted Averages (TWAs)

Benzene	71-43-2	10 ppm TWA (apply only to exempt industry segments)
Toluene	108-88-3	200 ppm TWA

OSHA - Vacated PELs - Ceilings

Benzene	71-43-2	25 ppm Ceiling (unless specified in 1910.1028)
Methylene Diphenyl Isocyanate (MDI)	101-68-8	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling

OSHA - Vacated PELs - TWAs

Benzene	71-43-2	10 ppm TWA (unless specified in 1910.1028)
Toluene	108-88-3	100 ppm TWA; 375 mg/m3 TWA

9. PHYSICAL & CHEMICAL PROPERTIES

pH	N/A
Density	1.04 g/cc
Odor	Aromatic
Color	Brown
Physical state	Liquid
Freeze protect	No
VOC (Volatile Organic Compounds)	3.82 lbs/gal

10. STABILITY & REACTIVITY

Hazardous reactions/decomposition products	If product is burned carbon monoxide, carbon dioxide, and other unknown products may be produced. Additional decomposition products include oxides of nitrogen, amines, hydrogen cyanide and isocyanate-containing compounds.
Hazardous polymerization	Hazardous polymerization can occur with elevated temperatures or contact with water.
Conditions to avoid	Keep away from sources of ignition. Avoid water, amines, strong bases, alcohols and metallic hydrides.
Stability	This product may react with strong acids, bases and oxidizing agents. This product is stable under normal conditions but will react slightly with water to release some heat and carbon dioxide. The reaction is not violent. Carbon dioxide, carbon monoxide and in high temperature (800° F) low oxygen atmospheres such as in fire situations, hydrogen cyanide may be released.

11. TOXICOLOGICAL INFORMATION

Toxicological data If any toxicological data is available, it will be listed below:

LD50

Toxicology Data - Selected LD50s and LC50s

Benzene	71-43-2	Inhalation LC50 Rat: 13050 ppm/4H; Oral LD50 Rat: 690 mg/kg; Dermal LD50 Rabbit: >8260 mg/kg
Methylene Diphenyl Isocyanate (MDI)	101-68-8	Oral LD50 Rat: 9200 mg/kg
Polymethylene Polyphenylene Isocyanate	9016-87-9	Inhalation LC50 Rat: 490 mg/m3/4H; Oral LD50 Rat: 49 g/kg; Dermal LD50 Rabbit: >9400 mg/kg
Toluene	108-88-3	Inhalation LC50 Rat: 12.5 mg/L/4H; Inhalation LC50 Rat: >26700 ppm/1H; Oral LD50 Rat: 636 mg/kg; Dermal LD50 Rabbit: 8390 mg/kg

Chronic effects Chronic exposure to solvents can cause reproductive problems, reduced fertility, dryness and cracking of skin, headaches, loss of appetite and nausea.

Carcinogenicity If this product contains any carcinogens, they will be noted below:

This product contains Methylene Diphenyl Isocyanate (MDI). MDI is not listed by the NTP, IARC or regulated by OSHA as a carcinogen. However, it has been shown to alter cells in certain experiments. Although inconclusive, these cellular changes are thought to indicate potential carcinogenicity.

IARC - Group 1 (Carcinogenic to Humans)

Benzene 71-43-2 Suppiement 7, 1987; Monograph 29, 1982

NIOSH - Pocket Guide - Potential Occupational Carcinogens

Benzene 71-43-2 potential occupational carcinogen

NTP (National Toxicology Program) - Report on Carcinogens - Known Carcinogens

Benzene 71-43-2 Known Carcinogen

NTP (National Toxicology Program) - Report on Carcinogens - Reasonably Anticipated to be Human Carcinogens

Benzene 71-43-2 Reasonably Anticipated To Be A Carcinogen

OSHA - Hazard Communication Carcinogens

Benzene 71-43-2 Present

12. ECOLOGICAL INFORMATION

VOC (Volatile Organic Compounds) 3.82 lbs/gal

Ecotoxicological information Organic solvents produce slight to moderate toxicity to aquatic life. Insufficient data exists to evaluate the effect on plants, birds or land animals.

13. DISPOSAL CONSIDERATIONS

It is the obligation of each user of the product mentioned herein to determine and comply with the requirements of all applicable local, state and federal regulations.

Waste disposal Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes. Empty containers must be handled with care due to product residue. Do not heat or cut empty container with electric or gas torch.

14. TRANSPORT INFORMATION

DOT

Basic shipping requirements:	
Proper shipping name	Toluene
Hazard class	3
UN number	UN1294
Packing group	II
Additional information:	
ERG number	128

IATA

Basic shipping requirements:	
Proper shipping name	Toluene
Hazard class	3
UN number	UN1294
Packing group	II

IMDG

Basic shipping requirements:

Proper shipping name	Toluene
Hazard class	3
UN number	UN1294
Packing group	II

15. REGULATORY INFORMATION

This MSDS is prepared and distributed pursuant to the Federal Hazard Communication Standard, 29 CFR 1910.1200.

Federal regulations All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Benzene	71-43-2	10 lb final RQ (receives an adjustable RQ of 10 lbs based on potential carcinogenicity in August 14, 1989 final rule); 4.54 kg final RQ (receives an adjustable RQ of 10 lbs based on potential carcinogenicity in August 14, 1989 final rule)
Methylene Diphenyl Isocyanate (MDI)	101-68-8	5000 lb final RQ; 2270 kg final RQ
Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ

CERCLA/SARA - Section 313 - Emission Reporting

Benzene	71-43-2	0.1 % de minimis concentration
Methylene Diphenyl Isocyanate (MDI)	101-68-8	1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)
Polymethylene Polyphenylene Isocyanate	9016-87-9	1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)
Toluene	108-88-3	1.0 % de minimis concentration

CWA (Clean Water Act) - Hazardous Substances

Benzene	71-43-2	Present
Toluene	108-88-3	Present

State regulations If this product contains any ingredients listed under California Proposition 65, they will be noted below:

California - Proposition 65 - Carcinogens List

Benzene	71-43-2	carcinogen, initial date 2/27/87

California - Proposition 65 - Developmental Toxicity

Benzene	71-43-2	developmental toxicity, initial date 12/26/97
Toluene	108-88-3	developmental toxicity, initial date 1/1/91

California - Proposition 65 - Reproductive Toxicity - Male

Benzene	71-43-2	male reproductive toxicity, initial date 12/26/97

International regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and contains all the information required by the Controlled Products Regulations.

All components are included on the Canadian Domestic Substances List (DSL).

HMIS Ratings

Health: 2*
Flammability: 3
Physical hazard: 2
Personal protection: X

SARA 311/312 HAZARD CATEGORIES

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - Yes

WHMIS status Controlled

WHMIS labeling

WHMIS classification	B2 - Flammable/Combustible D2A - Other Toxic Effects-VERY TOXIC D2B - Other Toxic Effects-TOXIC

16. OTHER INFORMATION

Disclaimer	The data in this MSDS has been compiled from publicly available sources. This data relates only to the designated product and not to the use of said product in combination with other materials. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Responsibility for proper precautions and safe use of the product lies with the user. All data in this MSDS is typical of the product as a whole, and does not represent any individual lot or batch, therefore, Bostik, Inc. makes no warranty about the accuracy of the data herein and assumes no liability for the use of such data. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.
Further information	Any characters following " BOSC24T " are just designations for the various types of packaging that are available for this product. These characters do not indicate a different product nor a different regulatory, health, safety and/or environmental status. This document covers the BOSC24T for all of its packaging types.
Issue date	07/28/2006
Prepared by	Pam Larsen
Supercedes	06/23/2006

Bostik

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product name	**L7132R**
Product name(s) covered	See Section 16 for Product Names Covered.
MSDS name	ADH 7132R LB
CAS number	Mixture
Generic description	Solvent Based Adhesive
Manufacturer	Bostik, Inc. 211 Boston Street Middleton, MA 01949 USA
24 hour emergency assistance	Telephone: 1-800-227-0332
General assistance	Telephone: 1-978-777-0100
MSDS assistance	Telephone: 1-978-750-7208

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component(s)	CAS #	Percent
Methyl ethyl ketone	78-93-3	30 - 60
Tetrahydrofuran	109-99-9	15 - 40
Toluene	108-88-3	10 - 30

3. HAZARDS IDENTIFICATION

Emergency overview

Liquid and vapors are flammable. Contact may cause skin and eye irritation. Mist may cause nose and throat irritation. Ingestion will cause nausea, vomiting, pain, upset stomach, and diarrhea.

Potential health effects

Skin

This product may cause irritation to the skin. Prolonged or repeated contact with this product may dry and/or defat the skin. This product may be harmful if it is absorbed through the skin.

Eyes

Liquid or vapors may irritate the eyes. Prolonged or repeated contact may worsen irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May lead to permanent damage if not treated promptly.

Inhalation

This product may cause irritation to the respiratory system. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination.

Ingestion

This product is harmful if swallowed. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Target organs

Lungs, skin and eyes.

Signs and symptoms of overexposure

Signs and symptoms of overexposure to this product include headache, irritation of upper respiratory tract, asthmatic symptoms, chest tightness, breathing difficulty, coughing, eye irritation, skin irritation, diarrhea.

4. FIRST AID MEASURES

First aid

Skin

Remove contaminated clothing to prevent further skin exposure and dispose of properly. In situations involving considerable skin contact, place the contaminated person in a deluge shower for at least 15 minutes. For minor exposures, wash thoroughly with soap and clean water. Get medical attention if irritation persists.

Eye

In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. If irritation persists get medical attention.

Inhalation

Move person to non-contaminated air. If the affected person is not breathing, apply artificial respiration. Call a physician if symptoms develop or persist.

Ingestion

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.

Notes to physician	This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately. If overexposure to the solvents in this product is suspected, testing should include nervous system and brain effects including recent memory, mood, concentration, headaches and altered sleep patterns. Liver and kidney function should be evaluated.

5. FIRE FIGHTING MEASURES

Extinguishing media	Use dry chemical, carbon dioxide, or foam. Use water spray on large fires. Use water to cool fire-exposed containers and to protect personnel. Do not direct a solid stream of water or foam into hot, burning pools; this may result in frothing and increase fire intensity.
Basic fire fighting procedures	Empty containers may retain product residue including Flammable or Explosive vapors. Do not cut, drill, grind, or weld near full, partially full, or empty product containers.
Sensitivity to mechanical impact	None Known
Sensitivity to static discharge	Sparks generated by static discharge may ignite this product or its vapors. All containers and equipment must be bonded or grounded to minimize risk.
Unusual fire & explosion hazards	During a fire, irritating and highly toxic gases may be generated during combustion or decomposition. Vapors may be heavier than air and may travel long distances along the ground before igniting back to vapor source. High temperatures can cause sealed containers to rupture due to a buildup of internal pressures. Cool with water.
Fire fighting equipment/instructions	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Flash point	14 °F (-10 °C)

6. ACCIDENTAL RELEASE MEASURES

Emergency action	Evacuate the area promptly and keep upwind of the spilled material. Isolate the spill area to prevent people from entering. Wear appropriate protective equipment and clothing during clean-up.
Containment	Stop discharge if safe to do so. Stop material from contaminating soil or from entering sewers or water streams. Cover spills with non-flammable absorbent and place in closed chemical waste containers.
Reporting	See Federal reporting requirements listed in Section 15. We recommend you contact local authorities to determine if there may be other local reporting requirements.

7. HANDLING & STORAGE

For Commercial Use Only - Not Packaged or Labeled for Home Use!

Handling	Keep this product from heat, sparks, or open flame. Avoid getting this material into contact with your skin and eyes. Wash hands thoroughly after handling, especially before eating, drinking, smoking, and using restroom facilities. Wash contaminated goggles, face shields, and gloves. Professionally launder contaminated clothing before re-use. Avoid breathing vapors or mists of this product. Use this product with adequate ventilation. Do not reuse the empty container.
Storage	Keep the container tightly closed and in a cool, well-ventilated place. Do not handle or store near an open flame, heat or other sources of ignition. All containers must be bonded or grounded to minimize risk.
Empty container precaution	Attention! Follow label warnings even after container is emptied since empty containers may retain product residues. Do not reuse empty container without professional cleaning for food, clothing, or products for human or animal consumption, or where skin contact can occur. Do not heat or cut empty container with electric or gas torch.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls	Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product. Additional area ventilation or local exhaust may be required to maintain air concentrations below recommended exposure limits. Explosion proof exhaust ventilation should be used.
Eye protection	Wear safety glasses; chemical goggles (if splashing is possible). Contact lenses should not be worn.
Skin and body protection	Impervious gloves should be used at all times when handling this product. Recommended gloves include rubber, neoprene, nitrile or viton. Use of protective coveralls and long sleeves is recommended.

Respiratory protection	Avoid breathing vapor and/or mists. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection. High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA) or a supplied air respirator.
General	Eyewash fountains and emergency showers should be readily available. Use good industrial hygiene practices in handling this material.

Exposure limits

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Methyl ethyl ketone	78-93-3	200 ppm TWA
Tetrahydrofuran	109-99-9	50 ppm TWA
Toluene	108-88-3	50 ppm TWA

NIOSH - Pocket Guide - TWAs

Methyl ethyl ketone	78-93-3	200 ppm TWA; 590 mg/m3 TWA
Tetrahydrofuran	109-99-9	200 ppm TWA; 590 mg/m3 TWA
Toluene	108-88-3	100 ppm TWA; 375 mg/m3 TWA

OSHA - Final PELs - Time Weighted Averages (TWAs)

Methyl ethyl ketone	78-93-3	200 ppm TWA; 590 mg/m3 TWA
Tetrahydrofuran	109-99-9	200 ppm TWA; 590 mg/m3 TWA
Toluene	108-88-3	200 ppm TWA

OSHA - Vacated PELs - TWAs

Methyl ethyl ketone	78-93-3	200 ppm TWA; 590 mg/m3 TWA
Tetrahydrofuran	109-99-9	200 ppm TWA; 590 mg/m3 TWA
Toluene	108-88-3	100 ppm TWA; 375 mg/m3 TWA

9. PHYSICAL & CHEMICAL PROPERTIES

pH	N/A
Density	0.92 g/cc
Odor	Solvent
Color	Amber
Physical state	Liquid
Freeze protect	No
VOC (Volatile Organic Compounds)	75 %

10. STABILITY & REACTIVITY

Hazardous reactions/decomposition products	If product is burned carbon monoxide, carbon dioxide, and other unknown products may be produced.
Hazardous polymerization	Will not occur.
Conditions to avoid	Keep away from sources of ignition.
Stability	Stable under normal conditions. This product may react with strong acids, bases and oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Toxicological data If any toxicological data is available, it will be listed below:

LD50

Toxicology Data - Selected LD50s and LC50s

Methyl ethyl ketone	78-93-3	Inhalation LC50 Mouse: 32 g/m3/4H; Oral LD50 Rat: 2600 mg/kg; Dermal LD50 Rabbit: 6400 mg/kg
Tetrahydrofuran	109-99-9	Inhalation LC50 Rat: 53.9 mg/L/4H; Inhalation LC50 Rat: 180 mg/L/1H; Oral LD50 Rat: 1650 mg/kg
Toluene	108-88-3	Inhalation LC50 Rat: 12.5 mg/L/4H; Inhalation LC50 Rat: >26700 ppm/1H; Oral LD50 Rat: 636 mg/kg; Dermal LD50 Rabbit: 8390 mg/kg

Chronic effects	Chronic exposure to solvents can cause reproductive problems, reduced fertility, dryness and cracking of skin, headaches, loss of appetite and nausea.
Carcinogenicity	If this product contains any carcinogens, they will be noted below:

12. ECOLOGICAL INFORMATION

VOC (Volatile Organic Compounds)	75 %

Ecotoxicological information Organic solvents produce slight to moderate toxicity to aquatic life. Insufficient data exists to evaluate the effect on plants, birds or land animals.

13. DISPOSAL CONSIDERATIONS

It is the obligation of each user of the product mentioned herein to determine and comply with the requirements of all applicable local, state and federal regulations.

Waste disposal Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes. Empty containers must be handled with care due to product residue. Do not heat or cut empty container with electric or gas torch.

14. TRANSPORT INFORMATION

DOT

Basic shipping requirements:	
Proper shipping name	Adhesives
Hazard class	3
UN number	UN1133
Packing group	II
Additional information:	
ERG number	128

IATA

Basic shipping requirements:	
Proper shipping name	Adhesives
Hazard class	3
UN number	UN1133
Packing group	II

IMDG

Basic shipping requirements:	
Proper shipping name	Adhesives
Hazard class	3
UN number	UN1133
Packing group	II

15. REGULATORY INFORMATION

This MSDS is prepared and distributed pursuant to the Federal Hazard Communication Standard, 29 CFR 1910.1200.

Federal regulations All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Methyl ethyl ketone	78-93-3	5000 lb final RQ; 2270 kg final RQ
Tetrahydrofuran	109-99-9	1000 lb final RQ; 454 kg final RQ
Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ

CERCLA/SARA - Section 313 - Emission Reporting

Toluene	108-88-3	1.0 % de minimis concentration

CWA (Clean Water Act) - Hazardous Substances

Toluene	108-88-3	Present

TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification

Methyl acetate	79-20-9	Section 4
Methylisobutyl ketone	108-10-1	Section 4 (applies only to those companies that signed an Enforceable Consent Agreement for this chemical)
Tetrahydrofuran	109-99-9	Section 4

State regulations If this product contains any ingredients listed under California Proposition 65, they will be noted below:

California - Proposition 65 - Carcinogens List

Benzene	71-43-2	carcinogen, initial date 2/27/87 Trace impurity

California - Proposition 65 - Developmental Toxicity

Benzene	71-43-2	developmental toxicity, initial date 12/26/97 Trace impurity
Toluene	108-88-3	developmental toxicity, initial date 1/1/91

California - Proposition 65 - Reproductive Toxicity - Male

Benzene	71-43-2	male reproductive toxicity, initial date 12/26/97 Trace impurity

International regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and contains all the information required by the Controlled Products Regulations.

HMIS Ratings
Health: 2*
Flammability: 3
Physical hazard: 0
Personal protection: X

SARA 311/312 HAZARD CATEGORIES
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

WHMIS status Controlled

WHMIS labeling

WHMIS classification
B2 - Flammable/Combustible
D2A - Other Toxic Effects-VERY TOXIC
D2B - Other Toxic Effects-TOXIC

16. OTHER INFORMATION

Disclaimer The data in this MSDS has been compiled from publicly available sources. This data relates only to the designated product and not to the use of said product in combination with other materials. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Responsibility for proper precautions and safe use of the product lies with the user. All data in this MSDS is typical of the product as a whole, and does not represent any individual lot or batch, therefore, Bostik, Inc. makes no warranty about the accuracy of the data herein and assumes no liability for the use of such data. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Further information Any characters following " L7132R " are just designations for the various types of packaging that are available for this product. These characters do not indicate a different product nor a different regulatory, health, safety and/or environmental status. This document covers the L7132R for all of its packaging types.

Issue date 08/09/2006

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Supercedes 07/28/2006