

MATERIAL SAFETY DATA SHEET

ISO 9001-2008
FM 70321

PRODUCT NAME: BINDER MD-413	DATE: 3-26-2009
HMIS CODES: H=2, F=1, R=2, P=X	DATA SHEET # 882
	LATEST REVISION DATE: 8-06-2010

-----SECTION 1 - MANUFACTURER IDENTIFICATION-----

MANUFACTURER'S NAME: RYVEC, INC.
ADDRESS: 251 E. PALAIS ROAD, ANAHEIM, CA. 92805-6239
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-----SECTION 2 - HAZARDOUS INGREDIENTS-----

HAZARDOUS COMPONENTS	CAS #	TLV (ACGIH)	OSHA PEL	WEIGHT %
METHYLENE BIS (PHENYL ISOCYANATE)	101-68-8	.005 ppm	.002 ppm	<20
DIPHENYLMETHANE DIISOCYANATE	02447-40-5	.005 ppm	.002 ppm	} <15
POLYMETHYLENE POLYPHENYL ISOCANATE	9016-87-9	.005 ppm	.002 ppm	
AROMATIC HYDROCARBONS	64742-05-8	5.000 ppm	5.000 ppm	

-----SECTION 3 - PHYSICAL DATA-----

APPEARANCE AND ODOR: LIGHT BROWN LIQUID, MILD ODOR
SPECIFIC GRAVITY: 1.08 (H₂O=1)
VAPOR DENSITY: HEAVIER THAN AIR

SOLUBILITY IN WATER: REACTS
% VOLATILE BY VOLUME: NO DATA

-----SECTION 4 - FIRE & EXPLOSION HAZARD DATA-----

FLASH POINT: 380+ °F. (COC)
FLAMMABLE LIMITS: N/A
EXTINGUISHING MEDIA: CO₂, DRY CHEMICALS, FOAM.
SPECIAL FIREFIGHTING PROCEDURES: WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING EQUIPMENT. IF WATER IS USED, IT SHOULD BE USED IN LARGE QUANTITIES.

UNUSUAL FIRE & EXPLOSION HAZARDS: EMPTY DRUMS THAT CONTAIN RESIDUAL MATERIAL, WHICH MAY DECOMPOSE TO EMIT TOXIC OR IRRITATING GASSES IF BURNED.

-----SECTION 5 - REACTIVITY DATA-----

STABILITY: STABLE
INCOMPATIBILITY: WATER, ACID, ALKALIES, AMMONIA, ALCOHOLS, METAL COMPOUNDS.

HAZARDOUS DECOMPOSITION: CARBON MONOXIDE (CO), CARBON DIOXIDE (CO₂), NITROGEN OXIDE, ISOCYANATE VAPOR AND MIST.

HAZARDOUS POLYMERIZATION: MAY OCCUR WITH INCOMPATIBLE REACTANTS, STRONG BASES, WATER AND HIGH TEMPERATURE.

-----**SECTION 6 - HEALTH HAZARD DATA**-----

INHALATION: AT ROOM TEMPERATURE, VAPORS ARE MINIMAL. MAY CAUSE RESPIRATORY SENSITIZATION IN SUSCEPTIBLE INDIVIDUALS. IF HEATED, EXCESSIVE CONCENTRATIONS ARE ATTAINABLE THAT COULD BE HAZARDOUS ON SINGLE EXPOSURE.

SKIN: PROLONGED OR REPEATED EXPOSURE MIGHT CAUSE SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION IN SUSCEPTIBLE INDIVIDUALS.

EYE CONTACT: MAY CAUSE SLIGHT EYE IRRITATION.

HEALTH HAZARDS (ACUTE & CHRONIC): HAZARDOUS INGREDIENTS LISTED HAVE BEEN KNOWN TO CAUSE CANCER IN LAB ANIMALS UNDER EXTREME CONDITIONS.

CARCINOGENICITY: OSHA YES IARC YES

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: RESPIRATORY SYMPTOMS ASSOCIATED WITH PRE-EXISTING LUNG DISORDERS.

EMERGENCY & FIRST AID PROCEDURES: FLUSH EYES WITH WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE RE-USE. IF AFFECTED BY VAPORS, REMOVE PATIENT TO FRESH AIR; GET MEDICAL ATTENTION IF NECESSARY. IF SWALLOWED, DO NOT INDUCE VOMITING. GET MEDICAL ATTENTION.

-----**SECTION 7 - SPILLS OR LEAK PROCEDURES**-----

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED: CONTAIN SPILL & SOAK IT UP WITH AN ABSORBANT MATERIAL. PLACE INTO CONTAINERS FOR WASTE DISPOSAL. PREPARE NEUTRALIZING SOLUTION OF 90% WATER, 8% AMMONIA AND 2% DETERGENT. TREAT THE SPILL AREA WITH NEUTRALIZING SOLUTION, USING 10 PARTS OF THE SOLUTION FOR EACH PART OF THE SPILL AND ALLOW IT TO REACT FOR 10 MINUTES.

WASTE DISPOSAL METHOD: DISPOSE OF WASTE MATERIALS IN LANDFILL IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

PRECAUTIONS TO BE TAKEN IN HANDLING & STORAGE: WASH AFTER HANDLING. STORE MATERIAL INDOORS IN CLOSED CONTAINERS WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION. STORE AT NORMAL AMBIENT TEMPERATURE. PROTECT FROM MOISTURE, HEAT AND SUN.

-----**SECTION 8 - PROTECTION INFORMATION**-----

RESPIRATORY PROTECTION: PROVIDE EFFECTIVE VENTILATION TO DRAW VAPORS OR FUMES AWAY FROM WORKERS. IN THE ABSENCE OF PROPER VENTILATION, USE AN APPROVED NIOSH/OSHA ORGANIC TYPE RESPIRATOR.

VENTILATION: ALL THERMOPLASTIC MATERIALS WILL EMIT FUMES AND OR VAPORS WHEN HEATED. USE ADEQUATE EXHAUST TO MAINTAIN EXPOSURE BELOW LIMITS.

PROTECTIVE GLOVES: USE NATURAL RUBBER OR NEOPRENE GLOVES.

EYE PROTECTION: EYE WASH STATION SHOULD BE AVAILABLE. GOGGLES ARE RECOMMENDED FOR ALL INDUSTRIAL WORK AREAS.

PROTECTIVE CLOTHING: LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE.

-----**SECTION 9 - SHIPPING DATA**-----

D.O.T. LABELS REQUIRED (CFR172.101-102): NONE

D.O.T. PLACARDS REQUIRED (CFR172.504): NONE

-----SECTION 10 - SARA TITLE III REGULATORY INFORMATION-----

THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES SUBJECT TO REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372:

CHEMICAL NAME:	CAS #	CONCENTRATION
METHYLENE BIS (PHENYL ISOCYANATE)	101-68-8	<20%

- A) AN IMMEDIATE HEALTH HAZARD
- B) A DELAYED HEALTH HAZARD
- C) A REACTIVE HAZARD

CALIFORNIA PROPOSITION 65 - THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. THE PRODUCT CONTAINS AROMATIC EXTRACT.

ADDITIONAL HEALTH EFFECTS ASSOCIATED WITH DIPHENYLMETHANE DIISOCYANATE (ALSO MDI: METHYL DIPHENYL DIISOCYANATE)

THE INTERNATIONAL ISOCYANATE INSTITUTE HAS RECENTLY SUBMITTED A PRELIMINARY REPORT OF A LONG-TERM INHALATION STUDY CONDUCTED ON POLYMERIC DIPHENYLMETHANE DIISOCYANATE (MDI). IN THIS STUDY, RATS WERE EXPOSED TO RESPIRABLE AEROSOL PARTICLES OF POLYMERIC MDI FOR 6 HOURS/DAY, 5 DAYS/WEEK, FOR TWO YEARS. THE CONCENTRATIONS USED WERE: 0 mg/m³ (CONTROL); 0.2 mg/m³ (LOW) 1.0 mg/m³ (MEDIUM); AND 6 mg/m³ (HIGH). HIGH AND MEDIUM EXPOSURES SHOWED CHRONIC IRRITATION EFFECTS ON THE NOSE AND LUNGS OF THE RATS. NO IRRITATION WAS SHOWN AT THE LOW DOSE. A LOW INCIDENCE OF BENIGN TUMORS WAS FOUND IN PRELIMINARY TESTS OF THE MEDIUM AND HIGH EXPOSURE GROUPS. ONE MALIGNANT TUMOR WAS FOUND IN THE HIGH EXPOSURE GROUP. THE INCIDENCE OF TUMORS WAS DOSE RELATED. PRELIMINARY EVALUATION OF THE EVIDENCE SUGGESTS THAT THE INCREASED INCIDENCE OF TUMORS IN THE LUNGS IS CONCURRENT WITH THE PROLONGED IRRITATION AND ACCUMULATION OF YELLOW FLUID THAT ACCOMPANIES LUNG IRRITATION AT THE MEDIUM AND HIGH LEVELS. OUR SUPPLIERS NOTE THAT THE TUMOR EFFECTS NOTED IN THIS STUDY WERE INDUCED AT LEVELS THAT WOULD NOT BE TOLERABLE IN THE WORKPLACE DUE TO THE IRRITANT AND SENSITIZING PROPERTIES OF MDI. THEREFORE, THEY FEEL THAT IT IS POSSIBLE TO ASSUME THAT IN THE ABSENCE OF ANY PROLONGED EXPOSURE LEADING TO CHRONIC IRRITATION AND LUNG DAMAGE, THE TUMOR FORMATION WOULD BE UNLIKELY. AT THIS TIME, MDI HAS NOT BEEN LISTED AS CARCINOGENIC BY NTP, IARC, OR OSHA.

TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS

ALL OF THE INGREDIENTS OF THIS MATERIAL HAVE BEEN REPORTED TO THE U.S. EPA, AND ARE INCLUDED IN THE TSCA CHEMICAL INVENTORY.

INTERNATIONAL CHEMICAL INVENTORIES

THE INGREDIENTS OF THIS PRODUCT ARE ALL ON THE FOLLOWING CHEMICAL SUBSTANCES INVENTORIES, ARE EXEMPT FROM THE INVENTORIES, OR ARE OTHERWISE COMPLIANT WITH INVENTORY REQUIREMENTS OF THE GOVERNING AGENCY:

EINECS (Europe), DSL/NDSL (Canada), AICS (Australia), ECL (Korea), MITI/ENCS (Japan), IECSC (China)

HMIS RATINGS:

<u>HEALTH</u>	<u>FLAMMABILITY</u>	<u>REACTIVITY</u>
2	1	2

0=MINIMAL 1=SLIGHT 2=MODERATE 3=SERIOUS 4=SEVERE

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