Section 1: Product Information

Name:	RHM-256 ADHESIVE
Description:	Urethane prepolymer
Use:	Reactive Hot Melt Adhesive
MSDS number:	T0154E
Appearance and odor:	Black; no odor
Contact:	Hamatite Technology Dept.
Emergency telephone:	+81-463-31-2766(Hiratsuka,Japan)
Product information	+81-463-31-2766(Hiratsuka,Japan)
Effective date:	02/17/09
Supersedes date:	N/A

Section 2: Hazardous Ingredients

A hazard evaluation of this product has been performed. The components listed below are identified as hazardous chemicals under the criteria of the OSHA hazard communication standard (29 CFR 1910.1200).

Common name / Chemical name	CAS number	Approximate %
Carbon black	1333-86-4	1 – 10
Urethane prepolymer	Trade Secret	90 – 100

Section 3: Emergency and First Aid Procedure

Eye contact:

Flush eyes with water for at least 15 minutes. If irritation develops, consult a physician.

Skin contact:

Remove contaminated clothing and shoes. Wash affected area with soap and water. If irritation develops, consult a physician. Wash contaminated clothing separately before reuse.

Inhalation:

Remove to fresh air. If symptoms develop, seek immediate medical attention. If not breathing, give artificial respiration, preferably mouth to mouth.

Ingestion:

Do not induce vomiting. Seek medical attention. Do not give anything by mouth if the person is drowsy, unconscious, or has no gag reflex.

Ingestion creates a high risk of aspiration and subsequent chemical pneumonitis. However, if more than one milliliter per kilogram of body weight of the hydrocarbon was ingested, careful emesis or lavage is recommended because of the toxic effects produced by the hydrocarbon.

Note to physician:

Treatment should be directed at preventing absorption, administering to the symptoms as they occur, and providing supportive therapy.

Section 4: Health Effects Summary

Primary route(s) of exposure: Eye - yes Skin - yes Inhalation - yes

Eye contact:

Can cause mild to moderate irritation.
The severity of reaction depends on duration of exposure and first aid procedures administered.

Skin contact:

Prolonged or repeated contact can defat the skin, cause irritation, and lead to the development of dermatitis.

Inhalation:

Can cause irritation to the nose, throat, and upper respiratory tract.
Inhalation can cause dizziness, headaches, and incoordination.
Nausea, vomiting, and gastrointestinal upset can occur.

Ingestion:

Ingestion can cause gastrointestinal irritation.
Can cause nausea, vomiting, and gastrointestinal upset.
Dizziness, faintness, drowsiness, and incoordination (ataxia) can occur.

Additional effects (target organs):

Eye.
Skin.

Aggravation of existing conditions:

Skin.

Section 5: Toxicologic Information

Carbon black

Toxic effects:

Can cause mechanical irritation and discoloration of the eyes and skin. Inhalation can cause irritation to the nose and respiratory tract. Prolonged and repeated inhalation can affect the pulmonary system causing difficulty in breathing, chest pain, and general weakness.

Carcinogenicity - listed by:

ACGIH: no IRAC monographs: no NTP annual report: no OSHA: no

Section 6: Occupational Control Procedures

Eye protection:

Wear chemical splash goggles.
An eye wash facility should be readily available.

Skin protection:

Wear protective clothing and appropriate impervious gloves. Because a variety of protective gloves exist, always consult glove manufacturer to determine the proper type for specific operation.

Respiratory protection:

Avoid breathing vapor and/or mist.
When established airborne exposure limits are surpassed (see airborne exposure limits in this section), wear NIOSH/MSHA approved equipment. Determine the appropriate type equipment for specific application by consulting the respirator manufacturer. Observe the respirator use limitations specified by NIOSH/MSHA or the manufacturer.

High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA) or a supplied air respirator. In addition, respiratory protection programs must be in compliance with 29 CFR 1910.134.

Ventilation:

Maintain airborne concentration below the established exposure limits (See airborne exposure limits in this section). General (dilution) ventilation may be acceptable. However, local exhaust ventilation is recommended when vapors, mists, or dusts can be released.

Personal hygiene:

Wash thoroughly after handling, especially before eating, drinking, smoking, or using restroom facilities. Wash contaminated goggles, faceshield, and gloves. Professionally launder contaminated clothing. Discard contaminated shoes.

Airborne exposure limits

Carbon black

ACGIH TLV-TWA: 3.5 mg/m^3
OSHA PEL: 3.5 mg/m^3

Note: Because of this product's physical composition, the release or generation of a dust is not expected to occur under normal conditions of use.

Section 7: Fire Protection Information

Flash point: > 150°C Test method: setaflash closed cup
Explosive limits: LEL (%) - not established UEL (%) - not established
Auto-ignition temperature: not established
Extinguishing media:

Small fires: use agents approved for class B hazards (e.g. dry chemical, carbon dioxide, halon, foam, steam) or water fog.
Large fires: Use water spray, fog, or alcohol foam.

Special fire fighting procedures:

Fire fighters and others who may be exposed to the products of combustion should be equipped with NIOSH approved positive pressure self-contained breathing apparatus (SCBA) and full protective clothing.

Unusual fire and explosion hazards:

When exposed to flames or high temperatures encountered during fire conditions, sealed containers may rupture because of the build up of internal pressure. Cool containers with water.

Section 8: Reactivity Data

Stable under normal conditions of storage and use: yes
Materials to avoid:

Amines.
Oxidizing agents.
Acids.
Strong bases.
Water.

Hazardous polymerization:

Hazardous polymerization will not occur.

Thermal decomposition products:

If heated to high temperatures, this product may emit the following compounds:

Flammable solvent vapors.
Isocyanate containing compounds.
Oxides of nitrogen.
Phosgene.
Smoke, soot, & toxic fumes (e.g. carbon dioxide & carbon monoxie).

Section 9: Spill and Leak Procedures

Responds to spills:

Shovel or vacuum spilled product and place in closed containers for further handling and disposal. Do not flush to sewer, stream, or other bodies of water.

Precautions:

If the airborne concentration exceeds established exposure limits (TLV or PEL), or if high airborne concentrations can occur, evacuate employees and ventilate the area.
A supplied air respirator or self-contained breathing apparatus (SCBA), should be used for entry into enclosed spaces, or in areas with inadequate ventilation.

Disposal methods:

If discarded in its original unused form, this product should be managed (stored/treated/disposed/etc.) at an authorized facility, in compliance with all applicable federal, state, and local requirements. Be sure to contact appropriate government environmental agencies if further disposal guidance is required.

Of the methods of disposal currently available, it is recommended that an alternative be selected according to the following order of preference, based upon environmental acceptability:

(1) Recycle or rework if at all feasible,
(2) Incinerate at an authorized facility, or
(3) Treat at an acceptable waste treatment facility.

Section 10: Special Precautions

Recommended storage practice and conditions:

Store in cool, dry, well ventilated are. Do not store above: 95°F, 35°C

Container use procedures:

No special precautions are needed. Follow good manufacturing and handling practices.

Empty container precautions:

This container can be hazardous when empty, because it can retain product residues. Therefore, do not reuse container for food, clothing, or products for human or animal consumption or where skin contact may occur.

Supplemental section 10 information:

HMIS classification - health: 1*; flammability: 1; reactivity: 0.

Section 11: Physical Data

% non-volatile (by weight):	100
pH:	not applicable
Vapor density (air=1):	not established
Solubility in water:	insoluble
Evaporation rate:	not established
Vapor pressure (mmHg @25℃):	not established
Specific gravity (water=1);	> 1
Approximate boiling point:	not established

Note: The physical data presented above are typical values and should not be construed as a specification.

Section 12: Label and Transportation Information

DOT shipping name:	non-regulated
DOT label:	not applicable
DOT identification No.:	not applicable

Supplemental section 12 information:

HM-181, IATA/ICAO, IMO - non-regulated

Section 13: Regulatory Information

Toxic substance control act (TSCA)

Chemical component(s) in this product are on the section 8(b) chemical substance inventory list (40 CFR 710).

SARA titleⅢinformation

Section 313 - toxic chemicals

Pursuant to section 313 of SARA titleⅢ, this product does not contain a toxic chemical in excess of 1 percent of the mixture (0.1 percent, if the listed toxic chemical is a carcinogen).

Section 302 - extremely hazardous substances

Pursuant to section 302 of SARA titleⅢ, this product does not contain an extremely hazardous substance.

Section 311/312 - hazard categories

Pursuant to section 311/312 of SARA titleⅢ, the physical and health hazard categories for this product are identified below:

Fire hazard:	no
Sudden release of pressure hazard:	no
Reactivity hazard:	no
Immediate (acute) health hazard:	yes
Delayed (chronic) health hazard:	yes

Hazardous materials information review regulation - Canada

This material safety data sheet provides information that complies with the requirements setforth under the Canadian workplace hazardous materials information system (WHMIS).

Claim for exemption registry No.:	not applicable
Filing date for claim:	not applicable

Section 14: Users Responsibility

A bulletin such as this cannot be expected to cover all possible individual situation. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions - in addition to those described herein - are required. Any health hazard and safety information contained herein should be passed on to your customers or employees, as the case may be.

Disclaimer of liability

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations of warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

If you have questions with regard to health effects, or other information presented in this document, contact:

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