

1. IDENTIFICATION**Product Identifier****Product Name** UH-4036V**Other means of identification****Product Code(s)** YUH-4036V**Product Type** Polyurethane Adhesive.**Recommended use of the chemical and restrictions on use****Recommended Use** For industrial use only.**Uses advised against** No information available**Details of the supplier of the safety data sheet****Supplier Address**

IFS Industries
400 Orrton Ave
PO Box 1053
Reading PA 19603

Company Phone Number

610-378-1381

Emergency telephone number**Emergency Telephone Number** CHEMTREC (800) 424-9300**2. HAZARDS IDENTIFICATION****Classification****OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 2

Label elements**Emergency Overview****Signal Word** Danger**Hazard Statements**

Causes skin irritation. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure.



Appearance Opaque

Physical State Solid

Odor Slight

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing must not be allowed out of the workplace. Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/eye protection/face protection.

Precautionary Statements - Response

Specific treatment (see Section 4 on this SDS). Get medical advice/attention 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 eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water and soap. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

Precautionary Statements - Storage

Store in a dry place.

Precautionary Statements - Disposal

Dispose of in accordance with federal, state and local regulations.

Hazards not otherwise classified (HNOC)

May be harmful if inhaled. Contact with product at elevated temperatures can result in thermal burns. Avoid breathing vapors or fumes from hot material. May cause irritation to mucous membranes and respiratory tract.

Other Information

Unknown acute toxicity

68.55001 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Components	CAS No.	Weight-%	Trade Secret
Methylene diphenyl diisocyanate (MDI)	101-68-8	1 - 5	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General Advice

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates. Contact with molten substance may cause severe burns to skin and eyes. Burns caused by molten material must be treated clinically.

Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact

Take off contaminated clothing and wash before reuse. Wash hands thoroughly after handling. Contact with molten substance may cause severe burns to skin and eyes. After contact with molten product, cool skin area rapidly with cold water. Consult a physician if necessary.

Inhalation

If symptoms persist, call a physician.

Ingestion None under normal use conditions. Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most Important Symptoms and Effects Asthma-like and/ or skin allergy-like symptoms. Hives. Itching. Signs and symptoms may include coughing, gasping, choking and difficulty breathing. Coughing and/ or wheezing. Rashes.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use, Foam, Dry chemical or CO₂

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.

Specific Hazards Arising from the Chemical

May cause sensitization by inhalation and skin contact. The product causes irritation of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. Dried product is capable of burning. Do not allow run-off from fire-fighting to enter drains or water courses.

Explosion Data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Use personal protection equipment. Ensure adequate ventilation. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

Environmental precautions

Environmental precautions

See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Cleaning Up

Prevent environmental discharge consistent with regulatory requirements. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Where possible allow molten material to solidify naturally. Pick up and transfer to properly labeled containers. Neutralize material and area with decontamination solution (95% water, 2% detergent, 3% concentrated ammonium hydroxide) letting stand for at least 15 minutes. May evolve CO₂. Loosely cover for 24-48 hrs to allow CO₂ to escape before disposal. Disposal should be in accordance with applicable regional, national and local laws and regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling

Use personal protection equipment. Avoid contact with eyes, skin and clothing. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Do not breathe vapor or mist. Do not breathe dust. Take off contaminated clothing and wash before reuse. Do not breathe (dust, vapor, mist, gas). Isocyanates are known to be strong sensitizers. May cause sensitization by inhalation and skin contact. People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation.

Conditions for safe storage, including any incompatibilities

Storage	Keep containers tightly closed in a cool, well-ventilated place. Keep from freezing. Will slowly evolve carbon dioxide if exposed to moisture.
Incompatible Products	Alcohols. Acids. Bases. Amines.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

Components	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA - WEEL
Methylene diphenyl diisocyanate (MDI) 101-68-8	TWA: 0.005 ppm	(vacated) Ceiling: 0.02 ppm (vacated) Ceiling: 0.2 mg/m ³ Ceiling: 0.02 ppm Ceiling: 0.2 mg/m ³	IDLH: 75 mg/m ³ Ceiling: 0.020 ppm Ceiling: 0.2 mg/m ³ TWA: 0.005 ppm TWA: 0.05 mg/m ³	-

Appropriate engineering controls

Engineering Measures	Showers Eyewash stations Ventilation systems.
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Individual protection measures, such as personal protective equipment

Eye/Face Protection	Avoid contact with eyes. Eye protection.
Skin and Body Protection	Wear protective gloves/protective clothing.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Take off contaminated clothing and wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical State	Solid	Odor Odor Threshold	Slight No data available	
Appearance	Opaque			
Color	Off-white			
Property	Values	Remarks • Method		
pH	Specific test data for the substance or mixture is not available			
Melting point / freezing point	No information available			
Boiling Point / Boiling Range	Specific test data for the substance or mixture is not available			
Flash Point	Specific test data for the substance or mixture is not available			
Evaporation Rate	No information available			
Flammability (solid, gas)	No information available			
Flammability Limit in Air	Specific test data for the substance or mixture is not available			
Upper Explosive Limits	Specific test data for the substance or mixture is not available			
Lower Explosive Limits	Specific test data for the substance or mixture is not available			
Vapor pressure	Negligible			
Vapor Density	Specific test data for the substance or mixture is not available			
Specific Gravity	1.1			

Water Solubility	Immiscible in water
Solubility in other solvents	Specific test data for the substance or mixture is not available
Partition coefficient	No information available
Autoignition Temperature	
Decomposition Temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	10000 - 13000 cps
Explosive Properties	No information available
Oxidizing Properties	No information available

Other Information

Softening Point Solids	Specific test data for the substance or mixture is not available
	100%

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions. Decomposes slowly on exposure to water. Evolves CO₂.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Excessive heat.

Incompatible Materials

Alcohols. Acids. Bases. Amines.

Hazardous Decomposition Products

Carbon oxides. Nitrogen oxides (NO_x). Isocyanates. Thermal decomposition can lead to release of irritating gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	Avoid breathing vapors or mists. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause irritation of respiratory tract. Irritating to mucous membranes.
Eye Contact	Contact with eyes may cause irritation.
Skin Contact	Hot liquid can cause severe burns. Prolonged or repeated contact may dry skin and cause irritation. May cause sensitization by skin contact.
Ingestion	Not an expected route of exposure. May be harmful if swallowed.

Components	Oral LD50	Dermal LD50	Inhalation LC50
Methylene diphenyl diisocyanate (MDI) 101-68-8	= 31600 mg/kg (Rat) = 9200 mg/kg (Rat) > 10000 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	= 369 mg/m ³ (Rat) 4 h = 490 mg/m ³ (Rat) 4 h

Information on toxicological effects

Symptoms	Specific test data for the substance or mixture is not available.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	May cause sensitization in susceptible persons.
Mutagenic Effects	Specific test data for the substance or mixture is not available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen. Polymeric MDI (pMDI) has been classified as IARC Group 3, "Not classifiable as to its carcinogenicity to humans" (1999) indicating there is inadequate evidence available to describe the carcinogenic potential in humans. In chronic exposure studies in rodents, pMDI produced tumors only at the highest exposure level of 6 mg/m ³ , which is significantly above the TLV for MDI (0.051mg/m ³). Based on the weight of evidence, when used according the manufacturer's recommendations, and exposure levels are maintained below the TLV, a determination of not classified for carcinogenicity is justified

Components	ACGIH	IARC	NTP	OSHA
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Methylene diphenyl diisocyanate (MDI) 101-68-8	-	Group 3	-	-
Reproductive Toxicity	No information available			
STOT - single exposure	No information available.			
STOT - repeated exposure	Causes damage to organs through prolonged or repeated exposure if inhaled.			
Aspiration Hazard	No information available.			

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	66,494.00
ATEmix (dermal)	89,857.00
ATEmix (inhalation-dust/mist)	13.50

12. ECOLOGICAL INFORMATION

Ecotoxicity

72.5 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Components	Algae/aquatic plants	Toxicity to Fish	Daphnia Magna (Water Flea)
Methylene diphenyl diisocyanate (MDI) - 101-68-8	3230: 96 h Skeletonema costatum mg/L EC50	N/A	1000: 24 h Daphnia magna mg/L EC50

Persistence and Degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Components	log Pow
Methylene diphenyl diisocyanate (MDI) 101-68-8	4.5

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Methods Dispose of in accordance with federal, state and local regulations.

Contaminated Packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

DOT Not Regulated (Single Container < RQ)

IATA Not regulated.

IMDG/IMO Not regulated.

15. REGULATORY INFORMATION

TSCA 8(b) All components are listed or exempt
DSL All components are listed or exempt

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Components	Weight-%	SARA 313 - Threshold Values %
Methylene diphenyl diisocyanate (MDI) - 101-68-8	1 - 5	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:

Components	Weight-%	HAPS data
Methylene diphenyl diisocyanate (MDI) 101-68-8	1 - 5	Present

CWA (Clean Water Act)

See information supplied by the manufacturer

CERCLA

See information supplied by the manufacturer

US State Regulations

California Proposition 65

Based on information from material suppliers and process knowledge, this product is not known to contain any Proposition 65 listed substances.

U.S. EPA Label Information

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health Hazard 2	Flammability 1	Instability 0	Physical and Chemical Hazards -
<u>HMIS</u>	Health Hazard 2	Flammability 1	Physical hazards 0	Personal Precautions X

Revision Date 13-Nov-2018

Revision Note

No information available

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet