DEEPWATER

I-ROD® ADHESIVE SAFETY DATA SHEET (Part A)

Issued: Jan. 1, 2017

Adhesive material used for installing I-Rod® thermoplastic strips on pipe supports.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	I-Rod® Adhesive (part A)
Product type:	Acrylic adhesive
Restriction of use:	None identified
Region:	United States
Company address:	13813 FM 529 Rd, Houston, TX 77041

2. HAZARD IDENTIFICATION

WARNING: CAUSES SKIN IRRITATION
MAY CAUSE AN ALLERGIC SKIN REACTION
CAUSES SERIOUS EYE IRRITATION

HAZARD CLASS:	HAZARD CATEGORY:
FLAMMABLE LIQUID	4
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1

Precautionary statements

Prevention:	Keep away from heat,sparks, open flames, hot surfaces - no smoking. Avoid breathing vapors, mist, or spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection.
Response:	IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.
Storage:	Store in a well-ventilated place. Keep cool.
Disposal:	Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS). See Section 11 for additional toxicological information.

3. COMPOSITION / INGREDIENTS

Hazardous component(s)	CAS Number	Percentage*
Tetrahydrofurfuryl methacrylate	2455-24-5	30-60
Alkyl methacrylate	Proprietary	10-30
Organoboron amine complex	Proprietary	1-5

*Concentration range is provided to assist users in providing appropriate protections, but the exact percentage is a trade secret.

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

Skin contact: Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Get medical attention. Wash clothing before reuse.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Symptoms: See Section 11.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing. In case of fire, keep containers cool with water spray.

Unusual fire or explosion hazards: Uncontrolled polymerization may occur at high temperatures, resulting in explosions or rupture of storage containers.

Hazardous combustion products: Oxides of carbon. Oxides of nitrogen. Irritating organic vapors. Collect contaminated fire extinguishing water separately; this must not be discharged into drains.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8; Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways. Advise authorities if product has entered or may enter sewers, water sources or extensive land areas.
Clean-up methods:	Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during cleanup. Soak up with inert absorbent material (sand, silica gel, acid binder, universal binder, sawdust, etc.). Scrape up as much material as possible. Store in a closed container until ready for disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling:	Use only with adequate ventilation. Keep away from heat, spark and flame. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not taste or swallow. Make sure containers are properly grounded before use or transfer of material. Refer to Section 8.
Storage:	Keep in a cool, well-ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Engineering controls:	Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination.
Respiratory protection:	Use a NIOSH approved respirator if ventilation is inadequate.
Eye/face protection:	Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Do not wear contact lenses. Safety showers and eye wash stations should be available.
Skin protection:	Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. Neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid	**Color:** Pale yellow
Odor: Characteristic	**Odor threshold:** Not available.
pH: Not available.	**Vapor pressure:** Not available.
Boiling point/range: Not available.	**Melting point/ range:** Not available.
Specific gravity: 0.9969	**Vapor density:** Not available.
Flash point: 95 °C (203°F)	**Decomposition temperature:** Not available
Flammable/explosive limits - lower: Not available.	**Flammable/explosive limits - upper:** Not available.
Auto-ignition temperature: Not available.	**Evaporation rate:** Not available.
Solubility in water: Not available.	**Partition coefficient** (n - octanol/water): Not available.
VOC content: 26.74%; 266 g/l	**Viscosity:** 4,000-11,000 mPa.s

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen. Oxides of boron. Hydrogen. Irritating organic vapors.
Incompatible materials:	Strong oxidizing agents. Strong reducing agents. Acids and bases. Free radical initiators. Oxygen scavengers. Heavy metals. Inert gases.
Reactivity:	Not available.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition. Store away from incompatible materials. Direct sunlight. UV light. Freezing conditions. Avoid moisture. Avoid static discharge. Inert gas blanketing. Loss of polymerization inhibitor.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

POTENTIAL HEALTH EFECTS/SYMPTOMS

Inhalation:	Vapors may cause headaches, nausea, dizziness and respiratory tract irritation.
Skin contact:	Causes skin irritation. May cause allergic skin reaction.
Eye contact:	Causes serious eye irritation.
Ingestion:	May cause gastrointestinal disturbances.

Hazardous component(s)	**LD50s and LC50s**	**Immediate and delayed health effects**
Tetrahydrofurfuryl methacrylate	None	Irritant, allergen
Alkyl methacrylate	Oral LD50 (RAT) = > 2,000 mg/kg	Irritant, allergen
Organoboron amine complex	None	No data

Hazardous component(s)	**NTP carcinogen**	**IARC carcinogen**	**OSHA carcinogen (specifically regulated)**
Tetrahydrofurfuryl methacrylate	No	No	No
Alkyl methacrylate	No	No	No
Organoboron amine complex	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available

13. DISPOSAL CONSIDERATIONS

Recommended method of disposal:	Follow all local, state, federal and provincial regulations for disposal.
Hazardous waste number:	Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation ground (49 CFR)

Proper shipping name:	Combustible liquid, n.o.s. (Tetrahydrofurfuryl methacrylate
Hazard class or division:	Combustible liquid
Identification number:	NA 1993
Packing group:	III

International air transportation (ICAO/IATA)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

Water transportation (IMO/IMDG)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

15. REGULATORY INFORMATION

United States regulatory information

TSCA 8 (b) Inventory Status:	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification:	None above reporting de minimis
CERCLA/SARA Section 302 EHS :	None above reporting de minimis
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health
CERCLA/SARA Section 313:	None above reporting de minimis
California Proposition 65:	No California Proposition 65 listed chemicals are known to be present.

Canada regulatory information

CEPA DSL/NDSL Status:	One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non - Domestic Substances List.

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Deepwater Manufacturing and its affiliates (”Deepwater”) do not assume responsibility for any results obtained by persons over whose methods Deepwater has no control. It is the user’s responsibility to determine the suitability of Deepwater’s products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Deepwater products. In light of the foregoing, Deepwater specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Deepwater’s products. Deepwater further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

DEEPWATER

I-ROD® ADHESIVE SAFETY DATA SHEET (Part B)

Issued: Jan. 1, 2017

Adhesive material used for installing I-Rod® thermoplastic strips on pipe supports.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	I-Rod® Adhesive (part B)
Product type:	Acrylic adhesive
Restriction of use:	None identified
Region:	United States
Company address:	13813 FM 529 Rd, Houston, TX 77041

2. HAZARD IDENTIFICATION

WARNING: CAUSES SKIN IRRITATION
MAY CAUSE AN ALLERGIC SKIN REACTION
CAUSES SERIOUS EYE IRRITATION

HAZARD CLASS:	HAZARD CATEGORY:
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1

Precautionary statements

Prevention:	Avoid breathing vapors, mist, or spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye and face protection. Wear protective gloves.
Response:	IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.
Storage:	Not prescribed
Disposal:	Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS). See Section 11 for additional toxicological information.

3. COMPOSITION / INGREDIENTS

Hazardous component(s)	CAS Number	Percentage*
Tetrahydrofurfuryl methacrylate	2455-24-5	30-60
Alkyl methacrylate	Proprietary	10-30

*Concentration range is provided to assist users in providing appropriate protections, but the exact percentage is a trade secret.

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

Skin contact: Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Get medical attention. Wash clothing before reuse.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Symptoms: See Section 11.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing. In case of fire, keep containers cool with water spray.

Unusual fire or explosion hazards: Uncontrolled polymerization may occur at high temperatures, resulting in explosions or rupture of storage containers.

Hazardous combustion products: Oxides of carbon. Oxides of nitrogen. Irritating organic vapors. Collect contaminated fire extinguishing water separately; this must not be discharged into drains.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8; Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways. Advise authorities if product has entered or may enter sewers, water sources or extensive land areas.
Clean-up methods:	Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during cleanup. Soak up with inert absorbent material (sand, silica gel, acid binder, universal binder, sawdust, etc.). Scrape up as much material as possible. Store in a closed container until ready for disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling:	Use only with adequate ventilation. Keep away from heat, spark and flame. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not taste or swallow. Make sure containers are properly grounded before use or transfer of material. Refer to Section 8.
Storage:	Keep in a cool, well-ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Engineering controls:	Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination.
Respiratory protection:	Use a NIOSH approved respirator if ventilation is inadequate.
Eye/face protection:	Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Do not wear contact lenses. Safety showers and eye wash stations should be available.
Skin protection:	Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. Neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid	**Color:** Pale yellow
Odor: Characteristic	**Odor threshold:** Not available.
pH: Not available.	**Vapor pressure:** Not available.
Boiling point/range: Not available.	**Melting point/ range:** Not available.
Vapor density: Not available.	**Flash point:** 95 °C (203°F)
Flammable/explosive limits - lower: Not available.	**Flammable/explosive limits - upper:** Not available.
Auto-ignition temperature: Not available.	**Evaporation rate:** Not available.
Solubility in water: Not available.	**Partition coefficient** (n - octanol/water): Not available.
VOC content: 23.75 %; 241 g/l	**Viscosity:** Not available.
Decomposition temperature: Not available	

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen. Irritating organic vapors.
Incompatible materials:	Strong oxidizing agents. Strong reducing agents. Free radical initiators. Oxygen scavengers. Heavy metals. Strong acids. Inert gases.
Reactivity:	Not available.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition. Store away from incompatible materials. Direct sunlight. Freezing conditions. UV light. Avoid moisture. Loss of polymerization inhibitor. Inert gas blanketing.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

POTENTIAL HEALTH EFECTS/SYMPTOMS

Inhalation:	Vapors may cause headaches, nausea, dizziness and respiratory tract irritation.
Skin contact:	Causes skin irritation. May cause allergic skin reaction.
Eye contact:	Causes serious eye irritation.
Ingestion:	May cause gastrointestinal disturbances.

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Alkyl methacrylate	Oral LD50 (RAT) = > 2,000 mg/kg	Irritant, allergen

Hazardous component(s)	NTP carcinogen	IARC carcinogen	OSHA carcinogen (specifically regulated)
Tetrahydrofurfuryl methacrylate	No	No	No
Alkyl methacrylate	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available

13. DISPOSAL CONSIDERATIONS

Recommended method of disposal:	Follow all local, state, federal and provincial regulations for disposal.
Hazardous waste number:	Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation ground (49 CFR)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

International air transportation (ICAO/IATA)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

Water transportation (IMO/IMDG)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

15. REGULATORY INFORMATION

United States regulatory information

TSCA 8 (b) Inventory Status:	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification:	None above reporting de minimis
CERCLA/SARA Section 302 EHS :	None above reporting de minimis
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health
CERCLA/SARA Section 313:	None above reporting de minimis
California Proposition 65:	No California Proposition 65 listed chemicals are known to be present.

Canada regulatory information

CEPA DSL/NDSL Status:	Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

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