

Material Safety Data Sheet

Liquid Hec

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PERSONAL PROTECTION	

1. Product and Company Identification

Material name	Liquid Hec
Version #	02
Revision date	July-19-2012
Supersedes date	September-28-2010
CAS #	Mixture
Product use	Water Gelling Agent
Manufacturer information	INTEGRITY INDUSTRIES INC.
Supplier information	INTEGRITY INDUSTRIES INC. P O BOX 5342 Kingsville, TX 78363
Supplier emergency telephone number(s)	CHEMTREC 1-800-424-9300/361-595-5561

2. Hazards Identification

Emergency overview	WARNING May be ignited by heat, sparks or flames. May be harmful by inhalation, in contact with skin and if swallowed. Vapors may be irritating to eyes, nose, throat, and lungs. Inhalation of vapors in high concentration can cause narcotic effects. May cause long-term adverse effects in the aquatic environment. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Eyes	Do not get this material in contact with eyes. Contact may irritate or burn eyes.
Skin	Do not get this material in contact with skin. May cause skin irritation and/or dermatitis.
Inhalation	Do not breathe vapor. May be harmful by inhalation. May cause irritation of respiratory tract. May cause headaches and dizziness.
Ingestion	Do not ingest. May be harmful if swallowed. May be irritating to mouth, throat, and stomach. May cause delayed lung damage.
Target organs	Eyes. Skin. Respiratory system. Central nervous system.
Chronic effects	Conjunctiva. Repeated inhalation may be harmful; lung irritation and serious central nervous system disorders may result.
Signs and symptoms	Corneal damage. Conjunctivitis.
Potential environmental effects	May cause long-term adverse effects in the environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Tetradecane	629-59-4	40 - 60
Hydroxyethylcellulose	9004-62-0	20 - 40
Pentadecane	629-62-9	10 - 20
Tridecane	629-50-5	1 - 5

4. First Aid Measures

First aid procedures

Eye contact If in eyes, rinse with water for 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention immediately.

Skin contact Immediately flush skin with plenty of water. Get medical attention if symptoms occur.

Inhalation Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention if symptoms occur.

Ingestion If swallowed, seek medical advice immediately and show this container or label. Rinse mouth. Give victim water or milk. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately.

Notes to physician Symptoms may be delayed.

General advice Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties Containers may explode when heated. Runoff to sewer may cause fire or explosion hazard.

Extinguishing media

Suitable extinguishing media Water. Water spray. Water fog. Foam. Dry chemical. Carbon dioxide (CO₂).

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

Protection of firefighters

Specific hazards arising from the chemical Fire may produce irritating, corrosive and/or toxic gases.

Protective equipment and precautions for firefighters Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Fire fighting equipment/instructions

In the event of fire and/or explosion do not breathe fumes. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Move containers from fire area if you can do it without risk. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Use water spray to cool unopened containers. Cool containers with flooding quantities of water until well after fire is out.

Specific methods

In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers.

6. Accidental Release Measures**Personal precautions**

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Keep unnecessary personnel away. Stay upwind. Keep out of low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Methods for containment

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up

Should not be released into the environment.

Large Spills: Dike far ahead of liquid spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. After removal flush contaminated area thoroughly with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly.

Never return spills in original containers for re-use.

Other information

Clean up in accordance with all applicable regulations.

7. Handling and Storage**Handling**

Do not handle or store near an open flame, heat or other sources of ignition. Do not smoke. All equipment used when handling the product must be grounded. Do not breathe vapors or spray mist. Use only with adequate ventilation. Do not get this material in contact with eyes. Avoid release to the environment. Wash thoroughly after handling.

Storage

Keep away from heat and flame. The pressure in sealed containers can increase under the influence of heat. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Keep container tightly closed. Keep in a well-ventilated place. Use care in handling/storage.

8. Exposure Controls / Personal Protection**Engineering controls**

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment**Eye / face protection**

Wear chemical goggles.

Skin protection	Wear suitable protective clothing and eye/face protection. Wear appropriate chemical resistant gloves.
Respiratory protection	A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.
General hygiene considerations	When using do not smoke. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Liquid.
Physical state	Liquid.
Form	Liquid.
Color	White - Tan.
Odor	Bland.
Odor threshold	Not available.
pH	Not available.
Vapor pressure	< 0.52 mm Hg
Vapor density	5.1
Boiling point	240 °F (115.56 °C)
Melting point/Freezing point	-4 °F (-20 °C)
Solubility (water)	Dispersible
Specific gravity	0.96
Relative density	Not available.
Flash point	> 225.00 °F (> 107.22 °C)
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	392.00 °F (200.00 °C) estimated
Evaporation rate	Not available
Other data	
Flash point class	Combustible IIIB
Partition coefficient (oil/water)	Not available

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	This product is incompatible with nitrates. Strong acids.
Hazardous decomposition products	Smoke. Carbon oxides.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Product	Species	Test Results
Liquid Hec (Mixture)		
Acute		
<i>Oral</i>		
LD50	Rat	9579 mg/kg
Components	Species	Test Results
Pentadecane (629-62-9)		
Acute		
<i>Other</i>		
LD50	Mouse	3493 mg/kg
Tetradecane (629-59-4)		
Acute		
<i>Dermal</i>		
LD50	Rat	5000.0001 mg/kg
<i>Oral</i>		
LD50	Rat	5000.0001 mg/kg
Tridecane (629-50-5)		
Acute		
<i>Dermal</i>		
LD50	Rat	2000.0001 mg/kg
<i>Oral</i>		
LD50	Rat	5000.0001 mg/kg
<i>Other</i>		
LD50	Mouse	1161 mg/kg
Sensitization	May cause sensitization of susceptible persons.	
Chronic effects	Hazardous by OSHA criteria.	
Carcinogenicity	Not expected to be hazardous by OSHA criteria.	
Skin corrosion/irritation	Not expected to be hazardous by OSHA criteria.	
Neurological effects	Excessive exposure may cause central nervous system effects such as dizziness, drowsiness or headaches.	

12. Ecological Information

Ecotoxicological data

Product	Species	Test Results
Liquid Hec (Mixture)		
Algae	IC50 Algae	0.0062 mg/L, 72 Hours, estimated

Components	Species	Test Results
Tetradecane (629-59-4)		
Algae	IC50 Algae	0.0022 mg/L, 72 Hours
Ecotoxicity	Components of this product have been identified as having potential environmental concerns.	
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.	
Persistence and degradability	Not available.	
Bioaccumulation / Accumulation		
Bioaccumulative potential		
Octanol/water partition coefficient log Kow		
Tetradecane		7.2
Partition coefficient		
Tetradecane		7.2

13. Disposal Considerations

Disposal instructions Do not allow this material to drain into sewers/water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.20-24). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

14. Transport Information

DOT

Not regulated as dangerous goods.

TDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2))

Not regulated.

DEA Essential Chemical Code Number

Not regulated.

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

DEA Exempt Chemical Mixtures Code Number

Not regulated.

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other Information

HMIS® ratings
 Health: 1
 Flammability: 1
 Physical hazard: 0

NFPA ratings
 Health: 1
 Flammability: 1
 Instability: 0

Disclaimer
 THIS PRODUCT'S HEALTH AND SAFETY INFORMATION IS PROVIDED TO ASSIST OUR CUSTOMERS IN ASSESSING COMPLIANCE WITH HEALTH, SAFETY AND ENVIRONMENTAL REGULATIONS. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US, AND IS BELIEVED TO BE ACCURATE, ALTHOUGH NO GUARANTEE OR WARRANTY IS PROVIDED OR IMPLIED BY THE COMPANY IN THIS RESPECT. SINCE THE USE OF THIS PRODUCT IS WITHIN THE EXCLUSIVE CONTROL OF THE USER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE CONDITIONS OF SAFE USE. SUCH CONDITIONS MUST COMPLY WITH ALL GOVERNMENTAL REGULATIONS.



This data sheet contains changes from the previous version in section(s):

Product and Company Identification: Product and Company Identification
Hazards Identification: Potential environmental effects
Fire Fighting Measures: Fire fighting equipment/instructions
Fire Fighting Measures: Specific methods
Physical & Chemical Properties: Multiple Properties
Chemical Stability & Reactivity Information: Hazardous decomposition products
Toxicological Information: Toxicological Data
Toxicological Information: Acute effects
Ecological Information: Ecotoxicity
Disposal Considerations: Disposal instructions