

MATERIAL SAFETY DATA SHEET

Product Name: AdSolve-H

CAS No.: 110-54-3

Version: 1

1. Identification

Product Code : 90045, 90229, 90524, 90787
Company Name : Advent Chembio Private Limited
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2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
ADSOLVE-H (A Non polar solvent mixture of C6 –Aliphatic hydrocarbons)	110-54-3	90- 100%

3. Hazards Identification**Hazard classification****Physical hazards**

Flammable liquids : Category 2

Health hazards

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 2

Toxic to reproduction : Category 2

Specific target organ toxicity - single exposure : Category 3

Specific target organ toxicity - repeated exposure : Category 1

Aspiration hazard : Category 1

Environmental hazards

Acute hazards to the aquatic environment : Category 2

Chronic hazards to the aquatic environment : Category 2

Labels elements

MATERIAL SAFETY DATA SHEET

Product Name: AdSolve-H

CAS No.: 110-54-3

Version: 1

Hazard symbol**Signal word****Hazard statement**

- : Danger
- : Highly flammable liquid and vapor.
- Causes skin irritation.
- Causes eye irritation.
- May cause respiratory irritation.
- May cause drowsiness or dizziness.
- Causes damage to organs through prolonged or repeated exposure.
- Suspected of damaging fertility or the unborn child.
- May be fatal if swallowed and enters airways.
- Toxic to aquatic life with long lasting effects.

Precautionary statement**Prevention**

- : Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Use only non-sparking tools. Take precautionary measures against static discharge. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Obtain special instructions before use. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood. Avoid release to the environment .

Response

- : IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: Use water spray, foam, dry powder or carbon dioxide for extinction. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. 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 INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF exposed or concerned: Get medical advice/attention .

Storage

- : Store in a dry place. Store in a closed container. Store in a well-ventilated place. Keep container tightly closed. Store

MATERIAL SAFETY DATA SHEET

Product Name: AdSolve-H

CAS No.: 110-54-3

Version: 1

Disposal

locked up. Store in a dry place.

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification

- : Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion .

4. First Aid Measures**General information**

- : Get medical advice/attention if you feel unwell. If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.

Ingestion

- : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Inhalation

- : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician .

Skin contact

- : IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower .

Eye contact

- : 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 .
- : Narcotic effect. Respiratory tract irritation .

Most important symptoms/effects, acute and delayed**Indication of immediate medical attention and special treatment needed**

- : Treat symptomatically. Symptoms may be delayed .

MATERIAL SAFETY DATA SHEET

Product Name: AdSolve-H

CAS No.: 110-54-3

Version: 1

5. Fire fighting measures

General fire hazards : Highly flammable liquid and vapour .

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media : Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical : Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Heat may cause the containers to explode .

Special protective equipment and precautions for firefighters

Special fire fighting procedures : Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Special protective equipment for fire-fighters : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA .

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Keep upwind. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

Methods and material for containment and cleaning up : Eliminate all ignition sources if safe to do so. Take precautionary measures against static discharges. Stop leak if possible without any risk. Use only non-sparking tools. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures : Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

Environmental precautions : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so .

MATERIAL SAFETY DATA SHEET

Product Name: AdSolve-H

CAS No.: 110-54-3

Version: 1

7. Handling and Storage

- Precautions for safe handling** : DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Use personal protective equipment as required. Wash hands thoroughly after handling. Use only with adequate ventilation. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Avoid contact with eyes, skin, and clothing.
- Conditions for safe storage, including any incompatibilities** : Store in a well-ventilated place. Keep cool. Store locked up.

8. Exposure Controls Personal Protection

Control parameters

Occupational exposure limits

Chemical identity	Type	Exposure Limit values	Source
HEXANE	TWA	50 ppm	US. ACGIH Threshold Limit Values (2011)
	REL	50 ppm 180 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	500 ppm 1800 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	50 ppm 180 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

Biological limit values

Chemical identity	Exposure Limit values	Source
HEXANE (2,5-Hexanedion, without hydrolysis: Sampling time: End of shift at end of work week.)	0.4 mg/l (Urine)	ACGIH BEL (2011)

Appropriate engineering controls : No data available.

Individual protection measures, such as personal protective equipment

General information : Good general ventilation (typically 10 air changes per hour) should

MATERIAL SAFETY DATA SHEET

Product Name: AdSolve-H

CAS No.: 110-54-3

Version: 1

be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

- Eye/face protection** : Wear safety glasses with side shields (or goggles) and a face shield.
- Hand protection** : Chemical resistant gloves .
- Other** : Wear suitable protective clothing.
- Respiratory protection** : In case of inadequate ventilation use suitable respirator. Chemical respirator with organic vapor cartridge and full face piece.
- Hygiene measures** : Provide eyewash station and safety shower. Observe good industrial hygiene practices. Do not eat, drink or smoke when using the product. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing.

9. Physical and Chemical Properties

- Appearance** : Colorless liquid.
- Odor** : Slight odor
- pH** : No data available.
- Melting point/freezing point** : -95 °C
- Initial boiling point and boiling range** : 68 °C
- Flash Point** : -23 °C
- Vapor pressure** : 20.2 kPa
- Vapor density** : 3 AIR=1
- Relative density** : 0.66 (20 °C)
- Solubility in water** : Insoluble in water
- Solubility (other)** : No data available.
- Formula** : C₆H₁₄
- Molecular Weight** : 86.18 g/mol

MATERIAL SAFETY DATA SHEET

Product Name: AdSolve-H

CAS No.: 110-54-3

Version: 1

10. Stability and Reactivity

Reactivity	:	No dangerous reaction known under conditions of normal use .
Chemical stability	:	Material is stable under normal conditions.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur.
Conditions to avoid	:	Heat, sparks, flames. Contact with incompatible materials .
Incompatible materials	:	Strong oxidizing agents.
Hazardous decomposition products	:	Thermal decomposition may release oxides of carbon.

11. Toxicological Information**Information on likely routes of exposure**

Ingestion	:	May be fatal if swallowed. May cause irritation of the gastrointestinal tract .
Inhalation	:	May cause irritation to the mucous membranes and upper respiratory tract. Irritating to respiratory system.
Skin contact	:	Causes skin irritation.
Eye contact	:	Causes eye irritation.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product	:	No data available.
Specified substance(s): HEXANE	:	LD 50 (Rat): 24 mg/kg
Dermal Product	:	No data available.
Inhalation Product	:	No data available.
Specified substance(s): HEXANE	:	LC 50 (Rat, 4 h): < 48,000 mg/l
Repeated dose toxicity Product	:	No data available.
Skin corrosion/irritation Product	:	Causes skin irritation.
Serious eye damage/eye irritation Product	:	Causes eye irritation.
Respiratory or skin sensitization Product	:	Not a skin sensitizer.
Carcinogenicity Product	:	This substance has no evidence of carcinogenic properties.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans DIOXANE	:	No carcinogenic components identified.

MATERIAL SAFETY DATA SHEET

Product Name: AdSolve-H

CAS No.: 110-54-3

Version: 1

US. National Toxicology Program (NTP) Report on Carcinogens DIOXANE	:	No carcinogenic components identified.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050 Germ cell mutagenicity	:	No carcinogenic components identified.
In vitro Product	:	No mutagenic components identified.
In vivo Product	:	No mutagenic components identified.
Reproductive toxicity Product	:	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure Product	:	Narcotic effect. Respiratory tract irritation.
Specific target organ toxicity - repeated exposure Product	:	Central nervous system. Peripheral nervous system.
Aspiration hazard Product	:	May be fatal if swallowed and enters airways.
Other effects	:	Can cause adverse reproductive effects - such as birth defects, miscarriages, or infertility.

12. Ecological Information**Ecotoxicity****Acute hazards to the aquatic environment :**

Fish Product	:	No data available.
Specified substance(s): HEXANE	:	LC 50 (Fathead minnow (<i>Pimephales promelas</i>), 96 h): 2.101 - 2.981 mg/l Mortality LC 50 (Carp (<i>Leuciscus idus melanotus</i>), 48 h): 210 mg/l Mortality
Aquatic invertebrates Product	:	No data available.
Specified substance(s): HEXANE	:	EC 50 (Brine shrimp (<i>Artemia salina</i>), 24 h): 1.36 - 1.66 mg/l Intoxication LC 50 (Water flea (<i>Daphnia magna</i>), 24 h): > 50 mg/l Mortality

Chronic hazards to the aquatic environment :

Fish Product	:	No data available.
Aquatic invertebrates Product	:	No data available.
Toxicity to Aquatic Plants	:	No data available.
Product:		
Persistence and degradability		
Biodegradation Product	:	The product is not expected to be biodegradable.
BOD/COD ratio Product	:	No data available.
Bioaccumulative potential		
Bioconcentration factor (BCF) Product	:	No data available on bioaccumulation.

MATERIAL SAFETY DATA SHEET

Product Name: AdSolve-H

CAS No.: 110-54-3

Version: 1

- Partition coefficient n-octanol / water (log Kow) Product** : Log Kow: 3.90
- Mobility in soil** : The product is insoluble in water and will spread on the water surface.
- Other adverse effects** : Expected to be very toxic to aquatic organisms. May cause long-term adverse effects in the environment.

13. Disposal consideration

- General information** : This product is highly flammable. Don't use fire to cut empty container after use.
- Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container.
- Contaminated packaging** : Since emptied containers retain product residue, follow label warnings even after container is emptied .

14. Transport Information

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	UN 1208	Hexane	3	II	No
IMDG	UN 1208	Hexane	3	II	No
IATA	UN 1208	Hexane	3	II	No

15. Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

Product Name: AdSolve-H

CAS No.: 110-54-3

Version: 1

16. Other Information**NFPA Hazard ID**

Flammability
Health
Reactivity
Special hazard

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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Product Name: AdSolve-H

CAS No.: 110-54-3

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HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).