Aero-Gel – Aerosol with 70% d-Limonene

Safety Data Sheet

SECTION 1: Product and company identification

Product name	:	Aero-Gel – Aerosol with 70% d-Limonene
Use of the substance/mixture	:	Aerosol
Product code	:	8388
Company	:	Total Solutions P.O. Box 240014 Milwaukee, WI 53224 - USA T (414) 354-6417
Emergency number	:	Chemtec: (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Flam. Aerosol 1	H222
Skin Irrit. 2	H315
Skin Sens. 1	H317
Asp. Tox. 1	H304

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS02 GHS07 GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :
Extremely flammable aerosol
May be fatal if swallowed and enters airways
Causes skin irritation
May cause an allergic skin reaction

Precautionary statements (GHS-US) :
Keep away from heat, sparks, open flames, hot surfaces, Do not smoke. - No smoking
Do not spray on an open flame or other ignition source
Pressurized container: Do not pierce or burn, even after use
Avoid breathing gas
Wash thoroughly after handling
Contaminated work clothing must not be allowed out of the workplace
Wear protective gloves
If swallowed: Immediately call a doctor, a POISON CENTER
If on skin: Wash with plenty of water
Do NOT induce vomiting
If skin irritation or rash occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
Store locked up
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F
Dispose of contents/container to comply with local/regional/national regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Citrus Terpenes	(CAS No) 94266-47-4	60 - 80	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304
ODORLESS MINERAL SPIRITS	(CAS No) 64741-65-7	20 - 40	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304
propane	(CAS No) 74-98-6	10 - 20	Flam. Gas 1, H220 Compressed gas, H280

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Take off immediately all contaminated clothing. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. show this sheet where possible. Keep watching the victim. Keep victim warm and rested. Wash contaminated clothing before reuse.

First-aid measures after inhalation : Move the affected person away from the contaminated area and into the fresh air. Artificial respiration and/or oxygen if necessary. IF INHALED: Do not apply mouth-to-mouth resuscitation. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve of other proper respiratory medical device. Immediately consult a doctor/medical service. If experiencing respiratory symptoms: Call a poison center or a doctor.

First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Get immediate medical advice/attention. Wash contaminated clothing before reuse.

First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid measures after ingestion : Immediately call a poison center or doctor/physician. Rinse mouth. Do not induce vomiting without medical advice. Vomiting: prevent asphyxia/aspiration pneumonia. Ingestion of large quantities: immediately to hospital.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : None under normal use.

Symptoms/injuries after skin contact : Dermatitis. Skin rash/inflammation. Irritation. Red skin. May cause an allergic skin reaction. Causes skin irritation.

Symptoms/injuries after eye contact : Direct contact with the eyes is likely irritating.

Symptoms/injuries after ingestion : Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Symptoms may be delayed. Keep watching the victim.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Powder. Alcohol-resistant foam. Water fog. Carbon dioxide.

Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable aerosol. May liberate toxic gases. Combustion produces irritating gases.

Explosion hazard : Contains gas under pressure; may explode if heated.

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters

Firefighting instructions : In case of fire and/or explosion do not breathe fumes. Move containers away from the fire area if this can be done without risk. NEVER direct water jet on liquid. Use water spray or fog for cooling exposed containers. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Some of these materials, if spilled, may evaporate leaving a flammable residue.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Consider initial downwind evactuation for at least 500 meters (1/3 mile). Evacuate unnecessary personnel. Stay upwind/keep distance from source. Gas is denser than air. May accumulate in low areas e.g. close to the ground. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors.

6.1.1. For non-emergency personnel

Protective equipment	:	Do not enter without an appropriate protective equipment. Do not breathe gas/vapor. DO NOT touch spilled material. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
Emergency procedures	:	Ventilate the area thoroughly, especially low lying areas (basements, work pits etc.). Advice local authorities if considered necessary.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid discharge to the environment. Do not contaminate water with the product or its container. Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

For containment	:	Eliminate every possible source of ignition. NO open flames, NO sparks, and NO smoking. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Form with air vapors (heavier than air) who stay on the floor. Gas is denser than air. May accumulate in low areas e.g. close to the ground. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop leak if safe to do so. Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid. Move the cylinder to a safe and open area if the leak is irreparable. Use water spray to disperse the vapors. Isolate area until gas has dispersed.
Methods for cleaning up	:	Following product recovery, flush area with water. Clean thoroughly. Dispose as hazardous waste. Reference to other sections (13).

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Vapors may form explosive mixture with air. Exclude sources of heat, sparks and open flame. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any incandescent material. Do not smoke while handling product. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. . Use only explosion-free electrical equipment with earth. Do not re-use empty containers. Obtain special instructions before use. Reduce/avoid exposure and/or contact. Do not breathe gas/vapor/aerosol. Avoid contact with skin, eyes and clothing. Avoid prolonged and repeated contact with skin. Use only outdoors or in a well-ventilated area. Wear positive pressure air supplied respirator if required by safe entry procedures. Wear recommended personal protective equipment.
Hygiene measures	:	Wash thoroughly after handling. Use good personal hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Do not puncture, incinerate or crush. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Proper grounding procedures to avoid static electricity should be followed.
Storage conditions	:	Store locked up. Refrigerate.
Incompatible products	:	Refer to Section 10 on Incompatible Materials.
Incompatible materials	:	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C.
Storage area	:	Store in a cool area. Aerosol 3.
Special rules on packaging	:	meet the legal requirements.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

propane (74-98-6)		
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

8.2. Exposure controls

Appropriate engineering controls	:	Provide sufficient air exchange and/or exhaust. 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. . Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Avoid exposure, obtain special instructions before use.

Personal protective equipment	:	Use appropriate personal protective equipment when risk assessment indicates this is necessary. Gloves. Face shield. Protective clothing.

Hand protection	:	Avoid exposure, obtain special instructions before use.
Eye protection	:	Avoid exposure, obtain special instructions before use. Face shield. Avoid contact with eyes.
Skin and body protection	:	Avoid exposure, obtain special instructions before use. Avoid contact with skin. Wear chemical protective equipment that is specifically recommended by the manufacturer. Use of an impervious apron is recommended. It may provide little or no thermal protection.
Respiratory protection	:	Avoid exposure, obtain special instructions before use. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.
Thermal hazard protection	:	Use appropriate personal protective equipment when risk assessment indicates this is necessary.
Consumer exposure controls	:	When using do not smoke. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Use good personal hygiene practices. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Aerosol.
Odor	:	fruity
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	182.21 °F Estimated
Flash point	:	-156 °F Propellant estimated
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Vapor pressure	:	3.79 - 4.47 atm @ 70F estimated
Relative density	:	No data available
Relative vapor density at 20 °C	:	No data available
Specific gravity / density	:	0.762 g/ml Estimated
Solubility	:	No data available
Log Pow	:	No data available
Log Kow	:	No data available
Auto-ignition temperature	:	509.38 Estimated
Decomposition temperature	:	No data available
Viscosity	:	No data available
Viscosity, kinematic	:	< 20 cSt
Viscosity, dynamic	:	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Risk of explosion. Risk of ignition. Unstable. The product is stable at normal handling- and storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4. Conditions to avoid

Heat. Open flame. Sparks. Aerosol containers are unstable at temperatures above 49°C. Avoid temperatures exceeding the flash point. . Incompatible materials.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce : Nitrogen oxides. Phosphorous oxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Aero-Gel	
LD50 dermal rat	2781 mg/kg
LC50 inhalation rat (mg/l)	712 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified.

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified.

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : May be fatal if swallowed and enters airways.

Potential Adverse human health effects and symptoms : Small amounts of liquid aspirated into the respiratory system during ingestion/vomiting may cause bronchopneumonia or pulmonary edema. Dermatitis. Allergic skin rash. skin irritation. Redness, pain.

Symptoms/injuries after inhalation : None under normal use.

Symptoms/injuries after skin contact : Dermatitis. Skin rash/inflammation. Irritation. Red skin. May cause an allergic skin reaction. Causes skin irritation.

Symptoms/injuries after eye contact : Direct contact with the eyes is likely irritating.

Symptoms/injuries after ingestion : Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

ODORLESS MINERAL SPIRITS (64741-65-7)	
Persistence and degradability	No test data available. No (test)data on mobility of the substance available.

12.3. Bioaccumulative potential

ODORLESS MINERAL SPIRITS (64741-65-7)	
Bioaccumulative potential	No test data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container to comply with local/regional/national/international regulations. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. . Contents under pressure. Do not puncture, incinerate or crush. This material and its container must be disposed of as hazardous waste. Incinerate the material under controlled conditions in an approved incinerator. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. . Do not allow into drains or water courses or dispose of where ground or surface waters may be affected. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this
product is considered a RCRA ignitable waste, D001. After recovery of solvent dispose of residue as hazardous waste.

Additional information : Containers, or internal liners coming from a container, having contained this product are also considered as hazardous wastes. This material and its container must be disposed of in a safe manner. Empty containers should be taken for recycle, recovery or waste in accordance with local regulation. Handle unclean empty containers as full ones.

SECTION 14: Transport information

Department of Transportation (DOT)

Transport document description : UN1950 Aerosols (flammable, (each not exceeding 1 L capacity)), 2.1

UN-No.(DOT) : UN1950

Proper Shipping Name (DOT) : Aerosols
flammable, (each not exceeding 1 L capacity)

Transport hazard class(es) (DOT) : 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115

Hazard labels (DOT) : 2.1 - Flammable gas

Marine pollutant : Yes (IMDG only)

DOT Packaging Non Bulk (49 CFR 173.xxx) : None

DOT Packaging Bulk (49 CFR 173.xxx) : None

DOT Special Provisions (49 CFR 172.102) : N82

DOT Packaging Exceptions (49 CFR 173.xxx) : 306

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 75 kg

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 150 kg

DOT Vessel Stowage Location : A

DOT Vessel Stowage Other : 25 - Shade from radiant heat,87 - Stow ‘‘separated from’’ Class 1 (explosives) except Division 14,126 - Segregation same as for Class 9, miscellaneous hazardous materials

Additional information

Other information : This product may be elegible to be shipped as a Limited Quantity or Consumer Commodity ORM-D utilizing the exception found at 49 CFR 173.306.

ADR

No additional information available

Transport by sea

UN-No. (IMDG) : UN1950

Proper Shipping Name (IMDG) : Aerosols

Class (IMDG) : 2.1 - Flammable gases

Air transport

UN-No.(IATA) : UN1950

Proper Shipping Name (IATA) : Aerosols

Class (IATA) : 2.1 - Gases : Flammable

SECTION 15: Regulatory information

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

ethylbenzene	CAS No 100-41-4	0.01 - 0.1

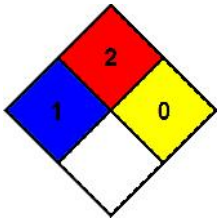
California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity.

SECTION 16: Other information

Full text of H-phrases:

Asp. Tox. 1	Aspiration hazard Category 1
Compressed gas	Gases under pressure Compressed gas
Flam. Aerosol 1	Flammable aerosol Category 1
Flam. Gas 1	Flammable gases Category 1
Flam. Liq. 3	Flammable liquids Category 3
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H220	Extremely flammable gas
H222	Extremely flammable aerosol
H226	Flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H336	May cause drowsiness or dizziness

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard : 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Prepared by: Technical Department

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