SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier
Trade name: Heptane

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Industrial or Commercial Use only.
Uses advised against: All other uses.

1.3 Details of the supplier of the Safety Data Sheet
USA Lab Inc.
12400 Belden Ct., Livonia,
MI 48150,
USA

Hazard emergency contact: Chemtrec 800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to OSHA Hazardous Communication Standard 29 CFR 1910.1200.
Flammable liquid, category 2
Aspiration toxicity, category 1
Skin irritation, category 2
Respiratory sensitization, category 1

2.2 Label elements
Labelling according to OSHA Hazardous Communication Standard 29 CFR 1910.1200:

Signal word: Danger

Hazard statements:

H225	Highly flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.

Precautionary statements:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 Keep/Store away from clothing/combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.

2.3 Other hazards
None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture meeting the criteria for classification in accordance with OSHA Hazardous Communication Standard 29 CFR 1910.1200.

Ingredients:

Name	CAS No.	GHS classification	% (w/v)
Naphtha (pet), hydrotreated lt AND/OR Heptane, branched, cyclic and linear AND/OR Solvent naphtha (pet), lt aliph.	64742-49-0 / 426260-76-6 / 64742-89-8	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Resp. Sens. 1, H336	90 – 100
n-Heptane	142-82-5	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Resp. Sens. 1, H336 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	30 – 50

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Following inhalation: Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact: After contact with skin, wash immediately with plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

Following eye contact: In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.

Following ingestion: Rinse mouth immediately and drink plenty of water. Call a physician immediately. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

Protection of first aider: Not applicable.

4.2 Most important symptoms and effects

Symptoms: The known symptoms and effects are described in section 2.2 of this SDS.

Risks: Untreated symptoms may result in additional health risks.

4.3 Indication of any immediate medical and special treatment
The physician may contact the national poison center for advice.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, Carbon dioxide (CO2), Dry chemical

Unsuitable extinguishing media: High volume water jet.

5.2 Specific hazards arising from mixture
No hazardous combustion products are known.

5.3 Advice for fire fighters

Special protective equipment for firefighters:
As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

5.4 Other information
No other information available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions:
Prevent product from entering drains.

6.3 Methods and materials for containment and cleaning up:
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Contain spillage, and then collect with non-combustible ab-sorbent material, (e.g. sand, earth, diatomaceous earth, ver-miculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place.

Incompatible materials: See section 10.

7.3 Specific end uses

See section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
64742-49-0 / 426260-76-6 / 64742-89-8	Naphtha (pet), hydrotreated AND/OR Heptane, branched, cyclic and linear AND/OR Sol-vent naphtha (pet)	TWA	400 ppm	ACGIH
		STEL	500 ppm	ACGIH
142-82-5	**Heptane	TWA	85 ppm	NIOSH REL
		TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA	400 ppm 1,600 mg/m3	OSHA P0
		STEL	500 ppm 2,000 mg/m3	OSHA P0
		TWA	400 ppm	ACGIH
		STEL	500 ppm	ACGIH

8.2 Exposure controls

Engineering controls:

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective equipment:

Hand:	Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374.
Body protection:	Appropriate protective clothing should be worn to prevent skin contact.
Eye:	Eye wash bottle with pure water. Tightly fitting safety goggles
Respiratory:	No personal respiratory protective equipment normally re-quired. In the case of vapour formation use a respirator with an ap-proved filter.
Other measures:	No statement available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Color:	Colorless
Odor:	Characteristic
Odor threshold:	No data available
pH:	No data available
Melting point/range:	-90.5 °C
Boiling point/range:	98.2 – 100 °C
Flash point:	-9 °C
Evaporation rate:	>1
Flammability:	flammable liquid in accordance with GHS criteria
Upper/lower flammability or explosive limits:	35 g/m³ (LEL) - 280 g/m³ (UEL)
Vapor pressure:	< 45 mmHg at 20 - 25 °C
Vapor density:	< 3.52 at 20 - 25 °C
Relative Density:	No data available
Solubility(ies):	0.002 g /l at 25 °C (water)
Partition coefficient (n-octanol/water):	4.5
Auto-ignition temperature:	246 – 260 °C
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
No dangerous reaction known under conditions of normal use.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Vapors may form explosive mixture with air.

10.4 Conditions to avoid
Keep away from heat, flame, sparks and other ignition sources.
Do not pressurize, cut, weld, braze, solder, drill, grind or ex-pose containers to heat or sources of ignition.

10.5 Incompatible materials
halogens
peroxides
Strong oxidizing agents
Strong reducing agents

10.6 Hazardous decomposition products
Carbon oxides
Sulphur oxides

SECTION 11: TOXICOLOGICAL INFORMATION

General information:
This product does not contain known human carcinogens.

11.1 Information on toxicological effects

Acute Toxicity:
No statements available for any of the ingredients.

Skin corrosion/irritation:
Causes skin irritation.

Serious eye damage/irritation:
No statements available for any of the ingredients.

Respiratory or skin sensitization:
May cause drowsiness or dizziness.

Germ cell mutagenicity:
No statements available for any of the ingredients.

Carcinogenicity:
This product does not contain known human carcinogens.

Reproductive toxicity:
No statements available for any of the ingredients.

STOT – single exposure:
No statements available for any of the ingredients.

STOT – repeated exposure:

No statements available for any of the ingredients.

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

Likely route(s) of exposure:
Skin exposure and eye exposure are the most likely to occur. Accidental ingestion is also possible.

SECTION 12: ECOLOGICAL INFORMATION

General information:
No statements available for any of the ingredients

12.1 Toxicity
64742-49-0 / 426260-76-6 / 64742-89-8:
Toxicity to fish:
LC50 (Carassius auratus (goldfish)): 4 mg/l
Exposure time: 24 h
Remarks: Information given is based on data obtained from similar substances.
Toxicity to daphnia and other aquatic invertebrates:
EC50 (Daphnia magna (Water flea)): 1.5 mg/l
Exposure time: 48 h
Test Type: static test
Remarks: Information given is based on data obtained from similar substances.
Toxicity to algae:
EC50 (Pseudokirchneriella subcapitata (green algae)): 3.7 mg/l
Exposure time: 96 h
Test Type: static test

12.2 Persistence and degradability

Physical- and photochemical elimination:
No statements available for any of the ingredients.

Biodegradation:
Biodegradation: 74.30 %

12.3 Bioaccumulative potential
log Pow: 2.13 - 4.85 (25 °C)

12.4 Mobility in soil

Known/Predicted environmental distribution:
No statements available for any of the ingredients.

Surface tension:
No statements available for any of the ingredients.

Adsorption/Desorption:
No statements available for any of the ingredients.

12.5 Results of PBT and vPvB assessment
This product does not contain components which are considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
No statements available for any of the ingredients.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product:
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Waste material:
Dispose according to Federal, State, Provincial and Local regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number
ADR/RID/IDMG/IATA: UN 1206

14.2 UN proper shipping name
ADR/RID/IDMG/IATA: HEPTANES

14.3 Transport hazard class(es)
ADR/RID/IDMG/IATA: 3

14.4 Packing group
ADR/RID/IDMG/IATA: II

14.5 Environmental hazards
ADR/RID/IDMG/IATA: Yes

14.6 Special precautions for user
No statements available.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable, as product is not shipped in bulk.

SECTION 15: REGULATORY INFORMATION

International Inventories
TSCA: Complies
DSL: All components are listed either on the DSL or NDSL.

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: Toluene is subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

SARA 311/312 Hazard Categories
Acute health hazard: Yes
Chronic Health Hazard: Yes
Fire hazard: Yes
Sudden release of pressure hazard: No
Reactive Hazard: No

CWA (Clean Water Act)
C9-C11 isoalkanes and toluene are hazardous substances.

CERCLA

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Toluene	108-88-3	1000	*
**Benzene	71-43-2	10	*

*: Calculated RQ exceeds reasonably attainable upper limit.

U.S. State Regulations
California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986
WARNING. This product can expose you to chemicals including **Cumene, **Benzene, **Ethylbenzene, **Naphthalene, which is/are known to the State of California to cause cancer, and **Toluene, **Benzene, which is/are known to the State of California to cause birth defects or other reproductive harm.

Canada
WHMIS Hazard Class
Not determined.

SECTION 16: OTHER INFORMATION

Further information
The information presented in this Safety Data Sheet (SDS) is accurate to the best of our knowledge at the date of publication. The information given within the SDS is meant solely as a guide for safe handling, use, transportation, processing, storage, release and disposal. In no means can the information within the SDS be considered as a warranty or specification for quality.