

SAFETY DATA SHEET

HOROLOGICAL ESSENCE

Product Description

Aliphatic Hydrocarbon used to degrease metals, hairsprings, and can be used as a general cleaner.

Directions

Place components in a jar or suitable container which has been part filled with Horological Essence. Leave for one / two minutes to soak. Remove by means of tweezers and drain on a piece of paper.

SECTION 1 : Identification of the substance / mixture and of the company/undertaking

1.1 Product Identifier

Product Name:	Horological Essence
Trade Name :	n-Heptane / SBP5
CAS No :	142-82-5
EC No (from EINECS)	205-563-8

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use(s) :	Solvent
Uses advised against :	No information given

1.3 Details of the supplier of the safety data sheet

Company Name :	Horological Solvents Ltd Barnside, 194 Wellington Road, Bury, Lancs. BL9 9AH
Tel:	0161 764 2741
Fax :	0161 764 8696
Email :	horological@restoration-materials.co.uk

1.4 Emergency telephone number

Emergency tel :	0161 764 2741 (office hours only)
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SECTION 2 : Hazards Identification

2.1 Classifications of the substance or mixture

According to 1272/2008	Flam liq.2 – H225, Asp.Tox.1 – H304, Skin Irrit. 2 H315, STOT SE 3 H336i, Aquatic Chronic 1 – H411
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EEC Directive 67/548/EEC & Directive 1999/45/EC

F ; R11, Xn ; R65, Xi; R38/ R67 / N; R50/53
Highly flammable. Irritating to skin. Very toxic to aquatic Organisms, may cause long term adverse effects in the Aquatic environment.
Harmful : may cause lung damage if swallowed.
Vapours : may cause drowsiness and dizziness.

2.2 Label elements According to 1272/2008



Signal Word(s) : DANGER

Hazard Statements

- H225 Highly flammable liquid and vapour
- H315 Causes skin irritation
- H336i May cause drowsiness or dizziness
- H304 May be fatal if swallowed and enters airways.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

- P210 Keep away from heat, sparks, open flames and hot surfaces. – No Smoking
- P233 Keep container tightly closed.
- P241 Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
- P261 Avoid breathing mist / vapours
- P280 Wear protective gloves and eye / face protection.

Precautionary Statement Response

- P301 + P310 If SWALLOWED: Immediately call a POISON CENTER or doctor
- P303+P361+P353 IF ON SKIN (or hair) : Remove / take off immediately all Contaminated clothing. Rinse skin with water / shower.
- P304+P340 If INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P312 Call a POISON CENTER or doctor if you feel unwell
- P331 Do NOT induce vomiting.
- P370+P378 In case of fire : Use water fog, foam, dry chemical or carbon Dioxide (CO₂) for extinction
- P391 Collect spillage.

Precautionary Statement Storage

- P403+P233+P235 Store in a well-ventilated place. Keep container tightly closed. Keep cool.
- P405 Store locked up.

Precautionary Statement Disposal

- P501 Dispose of contents and container in accordance with local Regulations.

SECTION 3 : Composition/information on ingredients

3.2 Hazardous Ingredients

Product Name : n-Heptane
CAS No : 142-82-5
EC No (from) EINECS 205-563-8
REACH Registration number : 01-2119457603-38

SECTION 4 : First Aid Measures

4.1 Description of first aid measures

Skin Contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse.

Eye Contact : Immediately flush eyes with plenty of water for at least 15 minutes. Check for and remove any contact lenses. Obtain medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask of self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention. If necessary, call a poison centre or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion : Get medical attention immediately. Call a poison centre or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Do not induce vomiting.

Protection of first-aiders.

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin and eye irritation : Possible symptoms are irritation of the mucous membranes, dry cough, and respiratory difficulty. Symptoms may include dizziness, headache, nausea and loss of co-ordination. Suitable first-aid treatment should be immediately available. Seek medical advice before using product.. May result in pulmonary oedema.

4.3 Indication of any immediate medical attention and special treatment needed

Obtain : Medical assistance

Recommendations to physicians : Provide oxygen.

SECTION 5 : Fire-fighting measures

5.1 Extinguishing Media

Suitable: In case of fire, Use dry powder. Carbon dioxide. Alcohol -resistant foam. Use water spray Or fog to control fire fumes.

Unsuitable extinguishing media : Do not use a solid water stream

5.2 Special hazards arising from the substance or mixture

Specific Hazards - Exposure to fire may cause containers to rupture / explode.

Hazardous Combustion Products – If involved in a fire the following toxic and / or corrosive fumes may be produced by thermal decomposition ; Carbon dioxide and Carbon monoxide.

5.3 Advice for fire-fighters

Special protective actions for fire-fighters: promptly isolate the scene by removing from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure modes. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6 : Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate area. Use self-contained breathing apparatus and chemically protective clothing. Ensure adequate air ventilation. Eliminate ignition sources. Consider the risk of potentially explosive atmospheres. Monitor concentration of released product. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.2 Environmental precautions

Try to stop release. Reduce vapour with fog or fine water spray.

6.3 Methods and material for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 13 for waste disposal.

6.4 Reference to other sections

See also Sections 8 and 13.

SECTION 7 : Handling and Storage

The information in this section contains generic advice and guidance. The list of identified uses in section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s)

7.1 Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupation hygiene: eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Worker should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulation. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations: Not available

Industrial sector specific solutions: Not available.

SECTION 8 : Exposure controls / personal protection

Occupational exposure limits

Product Name	Exposure Limit Values
Heptanes (and isomers)	EH40/2005 WELs (UK) 8/2007 TWA : 500 ppm 8 hour(s)

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and / or the necessity to use respiratory equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Product/ingredients name	Type	Exposure	Value	Population	Effects
Hydrocarbons, C7, n-alkane, isoalkanes, cyclics	DNEL	Long term dermal	300mg/kg bw/day	Workers	Systemic
	DNEL	Long term inhalation	2085 Mg/m ³	Workers	Systemic
	DNEL	Long term Oral Dermal	149 mg/kg Bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	447 mg/m ³	Consumers	Systemic

Predicted effect concentrations

No PECs available.

8.2 Exposure controls

Appropriate engineering controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene Measures

Wash hands, forearms and face thoroughly after handling chemicals products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to avoid liquid splashes, mists, gases or dusts. Recommended: Tightly-fitting goggles.

Hand Protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. > 8 hours (breakthrough time): Impervious gloves, polyvinyl alcohol (PVA) polyethylene (PE) Viton Nitrile gloves.

Body protection

Use suitable protective equipment.

Respiratory protection

If operating conditions cause high concentrations or the TLV is exceeded, use supplied air respirator.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9 : Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance :	Colourless Liquid
Odour :	Characteristic
pH :	Not available
Melting Point / Freezing Point	<-20°C
Initial Boiling Point & Boiling Range	90 - 100°C
Flash Point :	Closed Cup <0°C Open Cup <0°C
Auto Ignition Temperature	200°C
Relative Density	0.69 to 0.698
Density	N/A
Solubility	Insoluble in cold water & hot water.
Vapour Pressure	6 kPa (20°C)
Upper / Lower Flammability or explosive limits	Lower : 0.6% Upper : 7%
Viscosity	Kinematic : 0.0005 to 0.012 cm ² /s Kinematic : (40oC) : 0.0055 cm ² /s
Oxidising properties	N/A
Explosive properties	N/A

SECTION 10 : Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

This product is stable

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials

Reactive or incompatible with the following materials: oxidizing materials

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11 : Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/Ingredient Name	Result	Species	Dose	Exposure
Hydrocarbons, C7, n-alkanes	LC50 Inhalation Vapour	Rat	>23300 mg/m ³	4 hours
Isoalkanes, cyclics	LD50 Dermal	Rat	>2920 mg/kg	-
	LD50 Oral	Rat	>5840 mg/kg	-

Conclusion / summary : Not available

Irritation / Corrosion

Product/Ingredient Name	Result	Species	Score	Exposure
Hydrocarbons, C7	Skin – Irritant	Rabbit	-	-
n-alkanes	Eyes – Oedema of the conjunctivae	Rabbit	0	-
Isoalkanes, cyclics	Dyes – Redness of the conjunctivae	Rabbit	0	-

Conclusion / summary

Eyes : Based on available data, the classification criteria are not met.

Sensitisation : Conclusion / summary : not available.

Mutagenicity - Conclusion / summary : Not available

Carcinogenicity - Conclusion / summary : Not available

Reproductive toxicity : Conclusion / summary : Based on data available, the classification criteria are not met.

Teratogenicity : Conclusion / summary : Not available

Specific target organ toxicity (single exposure)

Product/ Ingredient Name	Category	Route of exposure	Target Organs
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Category 3	Inhalation	Narcotic effects

Aspiration Hazard

Product / Ingredient Name	Result
Hydrocarbons, C7, n-alkanes, cyclics	ASPIRATION HAZARD – Category 1

Information on the likely routes of exposure : Not available

Potential acute health effects

Eye Contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness

Skin Contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye Contact : Adverse symptoms may include the following : pain or irritation, watering, redness.

Inhalation : Adverse symptoms may include the following, nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness.

Skin Contact : Adverse symptoms may include the following : irritation, redness.

Ingestion : Adverse symptoms may include the following : nausea or vomiting.

SECTION 12 : Ecological Information

12.1 Toxicity

Hydrocarbons, C7	EC50 10 mg/l	Algae-Raphidocells	72 hours
n- alkanes, isoalkanes, cyclics,	LC50 3 mg/l	Daphnia- daphnia magna	48 hours
	LC50 > 13.4 mg/l	Fish- Oncorhynchus mykiss	96 hours
	NOEC 1 mg/l	Daphnia- daphnia magna	21 days
	NOEC 1.534 mg/l	Fish	28 days

Conclusion summary: Not available

12.2 Persistence and degradability

Compartment : Water - Test duration 10d

Degradation : 70%

The overall results suggest that it would meet the criteria for ready biodegradation.

12.3 Bio accumulative potential

Not available

12.4 Mobility in soil

Soil / water partition – not available. Mobility : Not available

12.5 Results of PBT and vPvB assessment

Contains no ingredients classified as PBT or vPvB.

12.6 Other adverse effects

No known significant effects or critical hazards

SECTION 13 : Disposal considerations

The information on this section contains generic advice and guidance. The list of identified used in section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s)

13.1 Waste treatment methods

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant.

Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste: The classification of the product may meet the criteria for a hazardous waste.

Packaging: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not possible.

Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may return some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14 : Transport information

14.1 UN number : 1206

14.2 UN proper shipping name : Heptanes



14.3 Transport hazard class(es) :

14.4 Packing Group : II

14.5 Environmental hazards : Environmentally hazardous.

14.6 Special Precautions for user

Immiscible with water. Irritating to skin, eyes and mucous membranes.

14.7 Transport in bulk according to Annex II or MARPOL73/78 and the IBC Code

Substance name : HEPTANE

Shipping type required : 2

Pollution Category : X

SECTION 15 : Regulatory Information

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture

Restricted to professional use.

15.2 Chemical Safety Assessment

Not available

SECTION 16 : Other Information

Full text of abbreviated H-Statements

H225 Highly flammable liquid and vapour.

H315 : Causes skin irritation.

H304 May be fatal if swallowed and enters airways.

H336i May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

Classification

Flam liq. 2, H225

Skin Irrit. 2, H315

STOT SE 3, H336i INHALATION (Narcotic effects) - Category 3

Asp Tox. 1, H304

Aquatic Chronic 2, H411

Legal Disclaimer : The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product. It is for users to satisfy themselves of the suitability of this product for their own applications.

Revision Date : 22/05/17