Conforms to Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals

SAFETY DATA SHEET

Agilent Technologies

Mobile 1 10W-30

Section 1. Identification

Product identifier : Mobile 1 10W-30

Part no. : G6600-85001

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

Identified uses : Reagents and Standards for Analytical Chemistry Laboratory Use

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

H361	REPRODUCTIVE TOXICITY - Category 2
H412	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

GHS label elements

Hazard pictograms :

Signal word : WARNING

Hazard statements : H361 - Suspected of damaging fertility or the unborn child.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P273 - Avoid release to the environment.

Response : P308 + P313 - IF exposed or concerned: Get medical advice or attention.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

Additional warning phrases : Not applicable.

Other hazards which do not result in classification : None known.

Section 3. Composition and ingredient information

Substance/mixture : Mixture

Ingredient name	% (w/w)	Identifiers
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	≤10	CAS: 68411-46-1 EC: 270-128-1
Distillates (petroleum), solvent-dewaxed heavy paraffinic	≤10	CAS: 64742-65-0 EC: 265-169-7
zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	≤3	CAS: 2215-35-2 EC: 218-679-9
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	≤3	CAS: 84605-29-8 EC: 283-392-8

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

The total concentration of ingredients in this product, reported or not in this section, is 100%.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. 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. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Section 4. First aid measures

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
phosphorus oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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 mode.

Remark : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and material for containment and cleaning up

Methods for cleaning up : 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. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers 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.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. 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. 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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Section 8. Exposure controls and personal protection

Ingredient name	Exposure limits
Distillates (petroleum), solvent-dewaxed heavy paraffinic	**Safe Work Australia (Australia, 1/2024) [Oil mist, refined mineral]** TWA 8 hours: 5 mg/m³. Form: Mist.
zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	**DFG MAC-values list (Germany, 7/2024) [Zinc and its inorganic compounds]** Develop C. PEAK 15 minutes: 0.4 mg/m³ 4 times per shift [Interval: 1 hour]. Form: respirable fraction. TWA 8 hours: 2 mg/m³. Form: inhalable fraction. TWA 8 hours: 0.1 mg/m³. Form: respirable fraction. PEAK 15 minutes: 4 mg/m³ 4 times per shift [Interval: 1 hour]. Form: inhalable fraction.
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	**DFG MAC-values list (Germany, 7/2024) [Zinc and its inorganic compounds]** Develop C. PEAK 15 minutes: 0.4 mg/m³ 4 times per shift [Interval: 1 hour]. Form: respirable fraction. TWA 8 hours: 2 mg/m³. Form: inhalable fraction. TWA 8 hours: 0.1 mg/m³. Form: respirable fraction. PEAK 15 minutes: 4 mg/m³ 4 times per shift [Interval: 1 hour]. Form: inhalable fraction.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical 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 liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Section 8. Exposure controls and personal protection

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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Colour : Amber./ Brown.

Odour : Characteristic.

Odour threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Boiling point or initial boiling point and boiling range : >316°C (>600.8°F)

Flash point : Closed cup: >200°C (>392°F) [ASTM D-92]

Evaporation rate : Not available.

Flammability : Not applicable.

Lower and upper explosion limit/flammability limit : Lower: 0.9%
Upper: 7%

Vapour pressure : <0.013 kPa (<0.1 mm Hg)

Relative vapour density : >2 [Air = 1]

Relative density : 0.855 to 0.859 [ASTM D4052]

Solubility(ies) :

Media	Result
water	Insoluble

Miscible with water : No.

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature :

Ingredient name	°C	°F	Method
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	500	932	EU A.15

Decomposition temperature : Not available.

Section 9. Physical and chemical properties and safety characteristics

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): 61.8 mm^2/s (61.8 cSt) [ASTM D 445]

Particle characteristics

Median particle size : Not applicable.

Physical/chemical properties comments : Pour point : -36°C (-33°F) [ASTM D97]

Section 10. Stability and reactivity

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

Chemical stability : The product is stable.

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

Conditions to avoid : No specific data.

Incompatible materials : May react or be incompatible with oxidising materials.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Rat - Oral - LD50	>5000 mg/kg
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Rabbit - Dermal - LD50	>5000 mg/kg
	Rat - Oral - LD50	>5000 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	>5.53 mg/l [4 hours]
zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	Rat - Male, Female - Oral - LD50	2.23 g/kg
	Rat - Male, Female - Dermal - LD50	>25000 mg/kg
Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts	Rat - Oral - LD50	3.2 g/kg

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Conclusion/Summary [Product] : Repeated exposure may cause skin dryness or cracking.

Ingredient name	Conclusion/Summary
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Non-irritant to skin.

Serious eye damage/eye irritation

Conclusion/Summary [Product] : Not available.

Ingredient name	Conclusion/Summary

Section 11. Toxicological information

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	May cause mild eye irritation.
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Non-irritating to the eyes.

Respiratory corrosion/irritation

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Product/ingredient name	Result	
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Guinea pig - Respiratory	Not sensitizing

Skin

Conclusion/Summary [Product] : May cause skin sensitisation.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Conclusion/Summary [Product] : Not available.

Ingredient name	Conclusion/Summary
Distillates (petroleum), solvent-dewaxed heavy paraffinic	No mutagenic effect.

Carcinogenicity

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Conclusion/Summary [Product] : Not available.

Ingredient name	Conclusion/Summary
Distillates (petroleum), solvent-dewaxed heavy paraffinic	No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Product/ingredient name	Result

Section 11. Toxicological information

Distillates (petroleum), solvent-dewaxed heavy paraffinic	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis (phosphorodithioate)	2230	N/A	N/A	N/A	N/A
Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts	3200	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result		
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Acute - EC50 - Fresh water	51 mg/l [48 hours]	Daphnia - *Daphnia magna*
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Acute - LC50	>100 mg/l [96 hours]	Fish
	Acute - EC50	>100 mg/l [48 hours]	Daphnia
	Acute - EC50	>100 mg/l [72 hours]	Aquatic plants

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Product/ingredient name	Result		
Phosphorodithioic acid, mixed O, O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	OECD [Ready Biodegradability - CO2 Evolution Test]	1.5% [28 days] - Not readily	Aerobic

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	-	-	Not readily
zinc O,O,O',O'-tetrakis (1,3-dimethylbutyl) bis (phosphorodithioate)	-	-	Not readily
Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	5.1	1730 [METI guideline (concentration test on chemical substances in fish)]	High
Distillates (petroleum), solvent-dewaxed heavy paraffinic	2 to 6	-	High
zinc O,O,O',O'-tetrakis (1,3-dimethylbutyl) bis (phosphorodithioate)	2.21	-	Low
Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts	0.56	-	Low

Section 12. Ecological information

Mobility in soil

Soil/water partition coefficient : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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 retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

ADG / IMDG / IATA : Not regulated as Dangerous Goods according to the ADG Code .

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

New Zealand : Not determined.

United States : Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 24/09/2025

Date of previous issue : 26/12/2022

Version : 7

Key to abbreviations : ADG = Australian Dangerous Goods
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
SGG = Segregation Group
SUSMP = Standard Uniform Schedule of Medicine and Poisons
UN = United Nations

Procedure used to derive the classification

Classification	Justification
REPRODUCTIVE TOXICITY - Category 2	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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