SAFETY DATA SHEET



1. Identification of the substance/preparation and company/undertaking

Product name Iloquench 798

SDS no. 464862

Use of the substance/mixture Quenching Fluid.

For specific application advice see appropriate Technical Data Sheet or consult our company

representative.

Supplier Castrol India Ltd

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2. Hazards identification

This preparation is not classified as dangerous according to Directive 1999/45/EC as amended and adapted.

Additional hazards Defatting to the skin.

Quench fluids will degrade in service leading to the generation of decomposition products which will contaminate the fluid. These may include polycyclic aromatic hydrocarbons (PCAs), some of which have been shown by experimental studies to induce skin cancer. See Toxicological Information, Section 11 of this Safety Data Sheet.

See sections 11 and 12 for more detailed information on health effects and symptoms and environmental hazards.

3. Composition/information on ingredients

Highly refined base oil and additives

This product does not contain any hazardous ingredients at or above regulated thresholds.

4. First-aid measures

Eye contact Hot product - Flood with water to dissipate heat. In the event of any product remaining, do not try to

remove it other than by continued irrigation with water. Obtain medical attention immediately. Cold product - Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open.

Obtain medical advice if any pain or redness develops or persists.

Skin contact Hot Product - Flood skin with cold water to dissipate heat, cover with clean cotton or gauze, obtain

medical advice immediately.

Cold Product - Wash contaminated skin with soap and water. Remove contaminated clothing and wash

underlying skin as soon as reasonably practicable.

Inhalation If inhaled, remove to fresh air. Get medical attention if symptoms appear.

Ingestion Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms

occur.

Notes to physician Treatment should in general be symptomatic and directed to relieving any effects.

5. Fire-fighting measures

Extinguishing media

Suitable In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.

Not suitable Do not use water jet.

Hazardous decomposition Combustion products may include the following:

products carbon dioxide carbon monoxide

Unusual fire/explosion hazards In a fire or if heated, a pressure increase will occur and the container may burst.

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

Protection of 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level

of protection for chemical incidents.

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Accidental release measures

Personal precautions - 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. Floors may be slippery; use care to avoid falling. Put on appropriate personal protective equipment.

Personal precautions - 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).

Large spill

stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. 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. Dispose of via a licensed waste disposal contractor.

Small spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Reference to other sections

See Section 1 for emergency contact information.

See Section 5 for firefighting measures.

See Section 8 for information on appropriate personal protective equipment.

See Section 12 for environmental precautions

See Section 13 for additional waste treatment information.

Handling and storage

Handling - Protective measures

Put on appropriate personal protective equipment. Concentrations of mist, fumes and vapours in enclosed spaces may result in the formation of explosive atmospheres. Excessive splashing, agitation or heating must be avoided.

Handling - Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Storage

Store and use only in equipment/containers designed for use with this product. Keep away from heat and direct sunlight. 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. Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10).

Exposure controls/personal protection

Ingredient name

Occupational exposure limits

ACGIH TLVs

For information and guidance, the ACGIH values are included. For further information on these please consult your supplier.

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

Exposure controls

Occupational exposure controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

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. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Respiratory protection

Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure.

In case of insufficient ventilation, wear suitable respiratory equipment.

The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Hand protection

General Information:

Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. The correct choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Most gloves provide protection for only a limited time before they must be discarded and replaced (even the best chemically resistant gloves will break down after repeated chemical exposures).

Gloves should be chosen in consultation with the supplier / manufacturer and taking account of a full

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assessment of the working conditions.

Recommended: Nitrile gloves.

Breakthrough time:

Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are taken into account. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type.

Our recommendations on the selection of gloves are as follows:

Continuous contact:

Gloves with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable gloves can be obtained.

If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to.

Short-term / splash protection:

Recommended breakthrough times as above.

It is recognised that for short-term, transient exposures, gloves with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

Glove Thickness:

For general applications, we recommend gloves with a thickness typically greater than 0.35 mm.

It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.

Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

Eye protection Skin and body

Safety glasses with side shields.

Use of protective clothing is good industrial practice.

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.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

Thermal hazards

Totton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required. Wear impervious and heat resistant coveralls covering the full body and limbs.

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Personal protective equipment (Pictograms)

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Physical and chemical properties

General information

Appearance

Physical state Liquid.

Colour Mober. [Light]

Important health, safety and environmental information

Flash point Open cup: 210°C (410°F) [Cleveland.]

Viscosity Kinematic: 170 to 180 mm²/s (170 to 180 cSt) at 40°C

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Density <1000 kg/m³ (<1 g/cm³) Solubility insoluble in water.

10. Stability and reactivity

Stability The product is stable

Possibility of hazardous

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

Conditions to avoid No specific data.

Reactive or incompatible with the following materials: oxidising materials. Materials to avoid

Hazardous decomposition

products

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

11. Toxicological information

Acute toxicity

Effects and symptoms

Eyes Potential risk of transient stinging or redness if accidental eye contact occurs.

Skin Turing quenching operations thermal decomposition products are likely to be formed in the fluid. These

potentially harmful contaminates will increase in concentration during service life to an extent depending on the degree of use and the rate of replenishment with fresh fluid. Avoid contact with all used fluids as some have been shown to cause irreversible skin effects. May cause skin dryness and irritation.

Inhalation May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition

products occurs.

Ingestion Ingestion of large quantities may cause nausea and diarrhoea.

Chronic effects Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Furing quenching operations thermal decomposition products are likely to be formed in the fluid. These Other information

potentially harmful contaminates will increase in concentration during service life to an extent depending on the degree of use and the rate of replenishment with fresh fluid. Avoid contact with all used fluids as

some have been shown to cause irreversible skin effects.

12. Ecological information

Persistence/degradability Expected to be biodegradable. **Mobility** Non-volatile. Liquid. insoluble in water.

Environmental hazards Not classified as dangerous.

13. Disposal considerations

Disposal considerations / Waste information

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 iurisdiction.

Unused product

Waste code	Waste designation
12 01 99	wastes not otherwise specified

However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

Packaging

Waste code	European waste catalogue (EWC)
15 01 10*	packaging containing residues of or contaminated by dangerous substances

14. Transport information

Not classified as hazardous for transport (ADR/RID, ADNR, IMDG, ICAO/IATA)

15. Regulatory information

Label requirements

Risk phrases This product is not classified according to EU legislation.

Additional warning phrases Safety data sheet available on request

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(India) (ENGLISH) Other regulations

REACH Status For the REACH status of this product please consult your company contact, as identified in Section 1.

United States inventory All components are listed or exempted.

(TSCA 8b)

Australia inventory (AICS)

Canada inventory

China inventory (IECSC)

Japan inventory (ENCS)

Korea inventory (KECI)

Philippines inventory

All components are listed or exempted.

(PICCS)

Taiwan inventory (CSNN) Not determined.

16. Other information

History

Date of issue/ Date of 07/05/2015.

revision

Date of previous issue 21/08/2013.

Prepared by Product Stewardship

Notice to reader

Indicates information that has changed from previously issued version.

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

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