

This Safety Data Sheet is in accordance with Regulation (EC) No 1907/2006 (REACH).

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Material Name : Fuel Oil
CAS No : 68476-33-5
EC No : 270-675-6

Other Names of Product:

Tüpraş-635 High Sulphur Fuel Oil
Tüpraş-660 Atmospheric Straight Run Fuel Oil
Tüpraş-675 Fuel Oil
Tüpraş-650 Marine Residual Fuel (RME-180)
Tüpraş-662 Marine Residual Fuel (RMG-380)
Tüpraş-676 Marine Residual Fuel (RMK-380)
Tüpraş-677 Marine Residual Fuel (RMK-500)
Tüpraş-695 Marine Residual Fuel (RMK-700)

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

Fuel for industrial, marine and commercial boilers and furnaces.

1.3 Details of the supplier of the substance or mixture

Manufacturer/Supplier : Tüpraş
Adress : Türkiye Petrol Rafinerileri A.Ş. Genel Müdürlüğü KÖRFEZ/
KOCAELİ
Telephone : +90 262 316 30 00
Fax : +90 262 316 30 10-11
e-mail : selcen.temeltopallar@tupras.com.tr
yasin.ersoz@tupras.com.tr

1.4 Emergency Telephone Number

Company Telephone : +90 262 316 30 00

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2. HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Classification according to Regulation (EC) No 1272/2008

| | |
|--|---|
| Acute toxicity, Category 4 | H332 |
| Carcinogenicity, Category 1 | H350 |
| Toxic to reproduction, Category 2 | H361d |
| Specific target organ toxicity – repeated exposure, Category 2 | H373 |
| Acute hazards to the aquatic environment, Category 1 | H400 |
| Chronic hazards to the aquatic environment, Category 1 | H410 |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

2.2 Label Elements

Labelling according to Regulation (EC) No 1272/2008.



Symbols:

GHS07

GHS08

GHS09

Signal Word: Danger

Hazard statements: Health hazards:

H332 Harmful if inhaled.

H350 May cause cancer.

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs or organ systems through prolonged or repeated exposure.

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EUH066 Repeated exposure may cause skin dryness or cracking.

Environmental Hazards:

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P201 Obtain special instructions before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P331 Do NOT induce vomiting.

P391 Collect spillage.

Disposal:

P501 Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.

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2.3 Other hazards

This product is hydrogen sulfide (H₂S) may include a highly toxic and extremely flammable gas.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

| CAS NO | EINECS NO | Chemical Composition | % Conc. | Risk Phrases (Regulation (EC) No 1272/2008) |
|------------|-----------|---|---------|--|
| 68476-33-5 | 270-675-6 | It's a mixture of atmospheric and vacuum tower residue. | %100 | Acute toxicity, Cat. 4 H332 Carcinogenicity, Cat.1 H350 Toxic to reproduction, Cat.2 H361d Specific target organ toxicity – repeated exposure, Cat.2 H373 Acute hazards to the aquatic environment, Cat. 1 H400 Chronic hazards to the aquatic environment, Category 1 H410 |

3.2 Mixtures

Not applicable.

4. FIRST-AID MEASURES

4.1 Description of First Aid Measures

Inhalation: If inhalation of mists, fumes or vapour causes irritation to the nose or throat, or coughing, remove to fresh air. In case of irregular breathing or respiratory arrest provide artificial respiration. If symptoms persist obtain medical advice and have product container or label at hand.

Skin Contact: Wash skin thoroughly with soap and water as soon as practicable. Remove heavily contaminated clothing and wash underlying skin. If hot product causes burns, the affected area should be flooded immediately with, or immersed in cold water for 10 minutes, or longer if pain persists.

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Eye Contact: Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists. If medical advice is needed, have product container or label at hand. If hot material enters the eye, flood immediately with cold water to dissipate the heat, if possible, ensuring eyelids are held open. Take the casualty to hospital for examination and treatment without delay

Ingestion: If contamination of the mouth occurs, wash out thoroughly with water. Except as a deliberate act, the ingestion or large amounts of product is unlikely. If it should occur, do not induce vomiting; obtain medical advice.

4.2 Most important symptoms/effects, acute & delayed

Casualties suffering ill effects as a result of exposure to hydrogen sulphide should be immediately removed to fresh air and medical assistance obtained without delay. Unconscious casualties must be placed in the recovery position. Monitor breathing and pulse rate and breathing has failed, or is deemed inadequate, respiration must be assisted, preferably by the mouth to mouth method. Administer external cardiac massage if necessary. Seek medical attention immediately

4.3 Indication of immediate medical attention and special treatment needed

Treat symptomatically. There is no specific antidote or treatment.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Use foam, dry powder, carbon dioxide and water fog. Ensure an escape path is always available from any fire.

5.2 Special hazards arising from substance or mixture

Combustion results toxic gases. Hazardous combustion products are carbon oxides, sulphur Oxides, nitrogen oxides, carbon monoxide.

5.3 Advice for fire-fighters

Ensure an escape path is always available from any fire. Use alcohol resistant foam, dry powder, water spray and sand. DO NOT USE water jets. Avoid spraying directly into storage containers because of the danger of boil-over. Fires in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus.

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6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, gloves and eye/face protection. In case of fire: Wear self-contained breathing apparatus. Emergency cooling must be provided. Remove product from area of fire.

6.2 Environmental precautions

Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.

6.3 Methods and material for containment and cleaning up

Spilled material may make surfaces slippery. Recovery of large spillages should be affected by specialist personnel. It is advised that stocks of suitable absorbent material should be held in quantities sufficient to deal with any spillage which may be reasonably anticipated. Large and uncontained spillages should be smothered with foam to reduce the risk of ignition. The foam blanket should be maintained until the area is declared safe. Spillages of hot product in confined spaces may be especially hazardous because highly toxic hydrogen sulphide gas may be present. For spillages in such confined spaces the use of approved breathing apparatus by personnel specially trained in its use may be required. Vapour may collect in any confined space. In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment. Recover product from the surface. Protect environmentally sensitive areas and water supplies. In the event of spillages contact the appropriate authorities.

6.4 Reference to other sections

Refer to sections 8 and 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety procedures. Ensure good ventilation and avoid as far as reasonably practicable the inhalation and contact with vapours.

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Wash hands before breaks and immediately after using the product. Do not allow contact with soil, surface or ground water.

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7.2 Conditions for safe storage, including any incompatibilities

Store and dispense only in well ventilated areas away from heat and sources of ignition. Store and use only in equipment/containers designed for use with this product. Containers must be properly labelled and kept closed when not in use. Do not remove warning labels from containers.

Empty packages may contain some remaining product. Retain hazard warning labels on empty packages as a guide to the safe handling, storage and disposal of empty packaging. Do not enter storage tanks without breathing apparatus unless the tank has been well ventilated and the tank atmosphere has been shown to contain hydrocarbon vapour concentrations of less than 1% of the lower flammability limit and an oxygen concentration of at least 20% volume. Confined spaces contaminated with hydrogen sulphide must always be considered as constituting potentially life threatening environments.

7.3 Specific end use

Except as provided in Section 1.2 is not required to offer any specific suggestions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

There is no appropriate occupational exposure limit for this material.

8.2 Exposure controls

There is no appropriate occupational exposure limit for this material.

8.2.1 Appropriate engineering controls

Ensure good ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

8.2.2 Personal protective precautions

Personal protective equipment:

Personal protective equipment (PPE) should meet recommended national standards.

Eyes: Chemical splash goggles (chemical monogoggles).

Skin: Wear suitable protective clothing. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Contaminated gloves should be replaced. Select gloves tested to a relevant standard (e.g. Europe EN374, US F739). When handling heated product wear heat resistant gloves. When prolonged or frequent repeated contact

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occurs, Nitrile gloves may be suitable. For incidental contact/splash protection Neoprene, PVC gloves may be suitable.

Inhalation: If operations are such that exposure to vapour, mist or fume may be anticipated, then suitable approved respiratory equipment should be worn. The use of respiratory equipment must be strictly in accordance with the manufacturer's instructions and any statutory requirements governing its selection and use.

Equipment to be used for exposure controls:

Clothes: TS EN 1149-3

Raincoat: TS EN 1149-3

Shoe: TS EN ISO 20345, TS EN 13287

Wellingtons: EN ISO 20345 200 JUL S5

Gloves: TS EN 420+A1, TS EN 374-3, 1149-5

Goggles: TS 5560 EN 166, TS EN 170

Breathing mask: EN 149:2001+A1:2009

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | Test Unit | Guarantee | Test Method |
|-----------------------------------|-----------|-------------|---|
| Appearance | | Homogeneous | Visual inspection |
| Relative density (at 15°C) max | | 1.01 | TS 1013 EN ISO 3675 or TS EN ISO 12185 |
| Viscosity, 100°C, max | cSt | 50 | TS 1451 EN ISO 3104 |
| Flash Point | °C | >60 | TS EN ISO 2719 or ASTM D93 |

9.2 Other Information

No relevant additional information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Oxidises on contact with air.

This Safety Data Sheet is in accordance with Regulation (EC) No 1907/2006 (REACH).

10.2 Chemical Stability

Stable under normal conditions of use.

10.3 Possibility of Hazardous Reactions

Oxidises on contact with air.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition source.

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Information given is based on product data, a knowledge of the components and the toxicology of similar products.

Acute toxicity

Acute Oral Toxicity: Low toxicity: LD50 > 5000 mg/kg , Rat

Acute Dermal Toxicity: Low toxicity: LD50 >2000 mg/kg , Rabbit

Acute Inhalation Toxicity: Harmful if inhaled. LC50 > 1.0 - <= 5.0 mg/l / 4 h, Rat

Skin corrosion/irritation

: Expected to be slightly irritating.

Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis. Contact with hot material can cause thermal burns which may result in permanent skin damage.

Serious eye damage/irritation

: Expected to be slightly irritating. Hot

product may cause severe eye burns and/or blindness.

Respiratory or skin sensitization

: Not expected to be a sensitiser.

Swallowing and breathing because when people vomit can cause lung damage.

Germ cell mutagenicity

: Positive in in-vitro, but negative in in-

vivo mutagenicity assays.

Carcinogenicity

: Causes cancer in laboratory animals

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Reproductive toxicity : Causes foetotoxicity at doses which are maternally toxic.

Specific target organ toxicity (single exposure) : Not expected to be a hazard.

Specific target organ toxicity (repeated exposure): May cause damage to organs or organ systems through prolonged or repeated exposure. (Blood, Liver, Thymus)

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

12.2 Persistence and degradability

The volatile constituents will oxidize rapidly by photochemical reactions in air. Major constituents are inherently biodegradable.

12.3 Bioaccumulative potential

Contains constituents with the potential to bioaccumulate.

12.4 Mobility in soil

Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day. Large volumes may penetrate soil and could contaminate groundwater. May float or sink in water. Contains volatile constituents.

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Material Disposal:

Dispose of by incineration or other suitable means under conditions approved by the local authority or via a licensed waste disposal contractor. At sea, used or unwanted product should be stored for eventual discharge into port approved waste oil disposal facilities. Empty packages may contain some remaining product. Hazard warning labels are a guide to the safe handling of empty packaging and should not be removed.

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Container Disposal:

Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard if heated above the flash point.

Local Legislation:

Ministry of Environment and Urbanism "Regulation on Control of Waste"

14. TRANSPORT INFORMATION**Land transport (ADR/RID):**

14.1 UN Number : 3082

14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

14.3 Transport hazard class(es) : 9

14.4 Packing group : III

14.5 Environmental hazards : Environmentally Hazardous

14.6 Special precautions for user : Refer to Chapter 7

Inland waterways transport (ADN):

14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

14.3 Transport hazard class(es) : 9

14.4 Packing group : III

14.5 Environmental hazards : Environmentally Hazardous

14.6 Special precautions for user : Refer to Chapter 7

Sea transport (IMDG Code):

14.1 UN Number : 3082

14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

14.3 Transport hazard class(es) : 9

14.4 Packing group : III

14.5 Marine pollutant : Yes

14.6 Special precautions for user : Refer to Chapter 7

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Air transport (IATA):**14.1 UN Number :** 3082**14.2 UN proper shipping name :** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,**14.3 Transport hazard class(es) :** 9**14.4 Packing group :** III**14.5 Environmental hazards :** Environmentally Hazardous**14.6 Special precautions for user :** Refer to Chapter 7**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No data.

15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

The contents and format of this SDS are in accordance with EEC Commission Directive 1272/2008/EC (CLP) and EEC Commission Regulation 1907/2006/EC (REACH).

15.2 National Regulations

This Safety Data Sheet is in accordance with "Regulation on Safety Data Sheets regarding the Hazardous Substances and Mixtures" published on 13 December 2014 on the official Gazette with No:29204.

16. OTHER INFORMATION**16.1 Other Information**

The information presented about health, safety and environment issues in this safety data sheet was given by considering of best knowledge and reliable sources at the date of its preparation. Although maximum effort was shown, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Health and safety precautions and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission, recommendation or authorization given or implied to practise any patented invention without a valid licence. The TÜPRAŞ shall not be responsible for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.

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Abbreviations :

- REACH : European Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
- ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID : Regulations Concerning the International Transport of Dangerous Goods by Rail
- IMDG : International Maritime Code for Dangerous Goods
- IMO : International Maritime Organization
- ICAO : International Civil Aviation Organization
- IATA : International Air Transport Association
- CLP : Classification, Labelling and Packaging Regulation according to 1272/2008/EC
- IMDG : International Maritime Dangerous Goods
- IATA : International Air Transport Association

16.2 Related Person

Competent Person Accreditation no: TSE GBF-A-0-2828