

**TUDAMELT FR 5860**

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**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

Name of product TUDAMELT FR 5860

Recommended intended purpose(s)

Used in a wide range of areas

Manufacturer/distributor

H &amp; R China (Fushun) Co., Ltd

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Liaoning, 113009, PRC.

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Emergency telephone number

120 119 110

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**2. HAZARDS IDENTIFICATION**

Classification of the substance or mixture

The product does not require a hazard warning label in accordance with GB13690-2009 general rules for classification and hazard communication of chemicals.

Special hazards information for humans and environment

The product is not classified as hazardous/is not a hazardous preparation and therefore exempt from labeling.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical characterization

Description

Mixture of paraffinic hydrocarbons.

CAS NO 8002-74-2

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**4. FIRST AID MEASURES**

Description of first aid measures

General information

Spillages make surfaces slippery.

In case of inhalation

In case of symptoms arising from inhalation of product fumes, mists or vapor: Remove casualty to a quiet and well ventilated place if safe to do so.

Obtain medical assistance if breathing remains difficult.

If casualty is unconscious and not breathing: Ensure that there is no obstruction to breathing and give artificial respiration by trained personnel.

If necessary, give external cardiac massage and obtain medical advice.

If casualty is unconscious and breathing, place in the recovery position. Administer oxygen if necessary.

Inhalation is unlikely because of the low vapor pressure of the substance at ambient temperature.

Symptoms: none expected at ambient temperature. Inhalation of fumes or oil mists produced at high temperatures may cause irritation of the respiratory tract

In case of skin contact

Remove contaminated clothing, contaminated footwear and dispose of safely.



Seek medical attention if skin irritation, swelling or redness develops and persists.

Do not put ice on the burn. Remove non-sticking garments carefully. DO NOT attempt to remove portions of clothing glued to burnt skin but cut round them.

For minor thermal burns, cool the burn. Hold the burned area under cold running water for at least five minutes, or until the pain subsides. Body hypothermia must be avoided.

Seek medical attention in all cases of serious burns.

Wash affected area with soap and water.

May cause burn in case of contact with product at high temperature.

Symptoms: dry skin, irritation in case of repeated or prolonged exposure.

In case of eye contact

If hot product is splashed into the eye, it should be cooled down immediately to dissipate heat, under cold running water for at least 5 minutes.

Immediately obtain specialist medical assessment and treatment for the casualty.

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist.

Symptoms: slight irritation. May cause burn in case of contact with product at high temperature.

In case of ingestion

Do not give anything by mouth to an unconscious person.

Do not induce vomiting. Ask for medical advice.

Symptoms: few or no symptoms expected. If any, nausea and diarrhoea might occur.

Most important symptoms and effects, both acute and delayed

Physician's information / possible dangers

Individuals with pre-existing lung disorders may have increased susceptibility of the effects of exposure.

When using high-pressure equipment, injection of product can occur.

Indication of any immediate medical attention and special treatment needed

Treatment (Advice to doctor)

Monitor breathing and pulse rate. Treatment should be in general symptomatic to relieve any effects.

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## 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Foam (trained personnel only).

Water fog (trained personnel only).

Dry chemical powder.

Carbon dioxide

Other inert gases (subject to regulations).

Sand or earth.

Extinguishing media which must not be used for safety reasons

Do not use direct water jets on the burning product; they could cause splattering and spread the fire.

Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

Special hazards arising from the substance or mixture

Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases,



including carbon monoxide + unidentified organic and inorganic compounds.

Advice for firefighters

Special protective equipment for fire-fighters

In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Small spillages: Normal antistatic working clothes are usually adequate.

Large spillages: full body suit of chemically resistant and thermal resistant material should be used.

Gloves made of PVA are not water-resistant, and are not suitable for emergency use.

Work gloves (preferably gauntlets) providing adequate chemical resistance.

Work helmet. antistatic non-skid safety shoes or boots, if necessary heat-resistant.

Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated.

If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

Respiratory protection:

A half or full-face respirator with combined dust/organic vapor filter(s), or a Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure.

Environmental precautions

Product in molten form: Prevent product from entering sewers, rivers or other bodies of water. Solidified product may clog drains and sewers.

If necessary dike the product with dry earth, sand or similar non-combustible materials. Let molten material cool naturally.

Methods and material for containment and cleaning up

In case of spillage in the water, the product will cool down rapidly and become solid.

Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.

Contain product with floating barriers or other equipment. Collect the product by skimming or other suitable mechanical means.

Except in case of small spillages: The feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency.

Collect solidified product with suitable means. (e.g. shovels).

When inside buildings or confined spaces, ensure adequate ventilation. In case of solid product (e.g. flakes), avoid the generation and spreading of dust.

The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

Collect recovered product and other materials in suitable tanks or containers for recovery or safe disposal.

Keep non-involved personnel away from the area of spillage. Alert emergency personnel.

Stop or contain leak at the source if this possible without risk

Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares).

If required, notify relevant authorities according to all applicable regulations.

Additional Information

Dust clouds may present an explosion hazard.

Recommended measures are based on the most likely spillage scenarios for this material.



Local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

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## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### Advice on safe handling

Ensure that all relevant regulations regarding handling and storage facilities of flammable products are followed.

Avoid contact with the hot product.

Avoid release to the environment.

Precautions should be taken to avoid skin burns when handling hot product.

Avoid breathing dust/fume/vapors.

Avoid splash filling of bulk volumes when handling hot liquid product.

Prevent the risk of slipping.

Use adequate personal protective equipment as required. For more information regarding protective equipment see section "Exposure control/personal protection".

Use and store only outdoors or in a well-ventilated area.

#### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking

#### Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

If the product is supplied in containers: Keep only in the original container or in a suitable container for this kind of product.

Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation.

#### Cleaning, inspection and maintenance of internal structure of storage tanks

must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.

Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Compatibility should be checked with the manufacturer.

Protect drains from spills and prevent entry of molten material, since this may result in blockage on cooling.

Liquids: Recommended materials for containers, or container linings use mild steel, stainless steel.

Recommended materials: pressboard boxes.

Keep containers tightly closed and properly labelled.

#### Advice on storage compatibility

Store separately from oxidising agents.

#### Further information on storage conditions

Empty containers may contain combustible product residues. Do not weld, solder, drill, cut or incinerate empty containers, unless they have been properly cleaned.

#### Specific end use(s)

#### Recommendation(s) for intended use



Ensure that proper housekeeping measures are in place.

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

Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets.

Keep away from food and beverages.

Wash the hands thoroughly after handling.

Change contaminated clothes at the end of working shift.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with occupational exposure limits to be monitored

Control parameters: value for wax fume PC—TWA 2 mg/m<sup>3</sup>, PC—STEL 4 mg/m<sup>3</sup>.

Exposure controls

Respiratory protection

If necessary, approved respiratory protection equipment shall be used when handling hot product in confined spaces: enclosed

face mask with cartridge/filter type "A" or self-contained breathing apparatus (SCBA).

Approved respiratory protection equipment shall be used when handling product in confined spaces:

full-face mask with particulate filter(s) giving a sufficient protection factor for the dust level present.

If exposure levels cannot be determined or estimated with adequate confidence, or an oxygen deficiency is possible, only SCBA's should be used.

Hand protection

Hot/molten product: Heat resistant gloves with long cuffs, or gauntlets. Product at ambient temperature (dust):

Wear suitable gloves tested.

Gloves must be periodically inspected and changed in case of wear, perforations or contaminations.

Eye protection

Hot/molten product:

If splashing is likely, full head and face protection (protective shield and/or safety goggles) should be used.

Product at ambient temperature (dust): safety goggles.

Skin protection

Hot/molten product:

Wear protective clothing for operations with hot material:

heat resistant coveralls (with trousers legs over boots and sleeves over cuffs of gloves), heat resistant heavy duty antiskid boots (e. g. leather).

Product at ambient temperature (dust): Long-sleeved coveralls, work boots.

Coveralls should be changed at the end of the work shift and cleaned as necessary to avoid transfer of product to clothes or underwear.

For loading/unloading operations: wear safety helmet, if necessary integrated full face visor. In case of hot/molten product: with integrated full face visor.

Hygiene measures

Use of personal protective equipment must be consistent with good occupational hygiene practices.

Additional advice on system design

Material handled at elevated temperature may cause thermal burns by contact with molten product.



Waxes may give off irritant/flammable vapours if heated close to their boiling points.

Although these are unlikely to present a significant health hazard, to avoid respiratory tract irritation inhalation exposure should be kept to a minimum

by observing good work practice and ensuring good ventilation around work areas.

Storage and handling temperatures should be kept as low as feasible to minimize fume production.

Minimise exposure to fumes. Where hot product is handled in confined spaces, effective local ventilation must be provided.

Do not enter empty storage tanks until measurements of available oxygen have been carried out.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form

solid

Colour

white

Odour

almost odourless

Colour Saybolt 28

Congealing point 58.5 °C

Melting point 59 °C

Oil content Mass-% 0.4%

Needle penetration @ 25 °C 18

Solubility in water

insoluble

Viscosity kinematic 4,0 mm<sup>2</sup>/s 100 °C

Other information

The values provided may fluctuate within customary limits.

## 10. STABILITY AND REACTIVITY

Reactivity

Chemical stability

Possibility of hazardous reactions

Conditions to avoid

Incompatible materials

Materials to avoid

Contact with strong oxidizers (peroxides, chromates, etc.) may cause a fire hazard.

A mixture with nitrates or other strong oxidisers (e.g. chlorates, perchlorates, liquid oxygen) may create an explosive mass.

Sensitivity to heat, friction or shock cannot be assessed in advance.



## Hazardous decomposition products

Combustion (incomplete) will likely generate oxides of carbon, sulphur and nitrogen, as well as additional undetermined organic compounds of the same elements.

None under normal conditions at ambient temperatures.

## Additional information

This substance is stable under all ordinary circumstances at ambient temperatures, and if released into the environment

## 11. TOXICOLOGICAL INFORMATION

## Information on toxicological effects

## Acute toxicity/Irritability/Sensitization

Value/Validation	Species	Method	Remark
LD50 acute oral > 5000 mg/kg	rat	Equivalent to OECD 401	Based on key study test data.
LD50 acute dermal > 2000 mg/kg	rabbit	Equivalent to OECD 402.	Based on key study test data.
Irritability skin non-irritant	rabbit	OECD 404	
Irritability eye non-irritant	rabbit eye	OECD 405	Based on key study test data.
Skin sensitization non-sensitizing	Guinea pig	OECD 406	Based on key study test data.

## Subacute Toxicity – Carcinogenicity

Value	Species	Method	Validation
Subchronic Toxicity	rat (male / female)	Equivalent to OECD 411	NOAEL > 2000 mg/kg bw/day
	Sub-chronic toxicity study (dermal).		
Mutagenicity		OECD 476.	Negative.
	Bacterial Reverse Mutation Assay		
Reproduction-Toxicity	rat (male / female).		NOAEL >=1000 mg/kg bw/day.
	1 Screening for reproductive/developmental toxicity (OECD 421 or 422)		Based on key study test data.
Carcinogenicity			Neoplastic effect: no
	Carcinogenicity study		

## 12. ECOLOGICAL INFORMATION

## Ecotoxicological effects

Value	Species	method	Validation
Fish LC50 > 100 mg/l (96 h)	Pimephales promelas	OECD 203	Based on key studies
Daphnia EC50 > 100 mg/l (48 h)	Daphnia magna	OECD202	Based on key study test data.

**Safety Data Sheet**

revision

10.12.2012

(GB) Version 1.0



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Algae	ErC50> = 100m g/l(72h)	Pseudokirchnerella Subcapitata	OECD 201	Based on key study test data.
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Persistence and degradability

Physico-chemical

Degradability

Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

Biological

Degradability

31 % (28 d)

OECD 301 F

inherently biodegradable  
Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

Bioaccumulative potential

Hydrocarbon composition- With potential biological accumulative. But because the metabolic action or physical and chemical properties, Will reduce the concentration of biological or biological usability.

Mobility in soil

Hydrocarbon composition- low solubility, can be floated , was thought that it could move from the water to the land or Absorption on solid waste water.

Other adverse effects

Respiration inhibition o f activated sludge

Value

Method

Remark

EC 50

Aquatic toxicity

LL50 (40h) &gt; 1000 mg/l QSAR Software Model

General regulation

Do not allow uncontrolled release of production to the environment

**13. DISPOSAL CONSIDERATIONS**

Hazardous waste classification HW09

Waste code No. 900-007-09

The disposal code is just a recommendation. Contact your local experts to obtain information about use or disposal of the material involved.

The indication about disposal refers to the product and its residues. If the product is mixed with other materials or preparations an individual evaluation should be necessary.

Recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleaning may be taken for reuse.

**14. TRANSPORT INFORMATION**





Land and inland navigation transport ADR/RID

No dangerous goods as defined by these transport regulations.

Marine transport IMDG

No dangerous goods as defined by these transport regulations.

Air transport ICAO/IATA-DGR

No dangerous goods as defined by these transport regulations.

Transport/further information

The product is not classified as a hazardous goods if the transport temperature lies below 100 °C.

As some products are usually solid or semi-solid at room temperature, they can be transported at ambient temperatures or higher (above their pour point or melting point).

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#### 15. REGULATORY INFORMATION

GB13690-2009 《general rules for classification and hazard communication of chemicals》.

Ministry of environment protection decree 1 《Hazardous waste list》.

GBZ2-2007 《Occupational exposure limits for hazardous agents in the workplace》 (Chemical hazardous agents)

GB/T16483-2008 safety data sheet for chemical products-Content and order of sections.

GB6994-2005 classification and code of dangerous goods

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#### 16. OTHER INFORMATION

Further information

Above information corresponds to our present knowledge and experience. It is not a guarantee that no errors or incomplete data may be contained.