

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Material name	:	ATM Heat Resistant Spray No. H660 (Black)
Recommended use	:	High performance spray to apply on high temperature substrates e.g. car engines, exhaust, chimney. The coating can be withstand to max temperature at 1200 °F
Supplier	:	UR Chemical Co., Ltd. 81, Moo 11, Tambol Bang-pla, Amphur Bang-plee Samutprakan 10540
Telephone	:	+66 2 312 1415-9
Fax	:	+66 2 312 1048
Emergency Telephone number	:	+66 2 312 1415

2. HAZARD IDENTIFICATION

GHS Classification	:	<ul style="list-style-type: none"> - Flammable aerosols, cat. 2 - Skin corrosion/ irritation, cat. 2 - Eye damage/ irritation, cat. 2A - Toxic to reproduction, cat. 2 - Specific Target Organ Toxicity following single exposure, cat.3 – narcotic effect. - Specific Target Organ Toxicity following repeated exposure, cat. 2 - Acute hazards to the aquatic environment, cat. 3
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GHS Label Elements

Symbol(s)



Signal words

WARNING

GHS Hazard Statement

Physical hazards

H223: Flammable aerosol.

Health hazards

H315: Causes skin irritation.
 H319: Causes serious eye irritation.
 H361: Suspected of damaging fertility or the unborn child.
 H336: May cause drowsiness and dizziness.
 H373: May cause damage to organs through prolonged or repeated exposure.

Environmental hazards

H402: Harmful to aquatic life.

GHS Precautionary Statement

- Prevention :
- P210: Keep away from heat/ sparks/ open flames/ hot surfaces. – No smoking.
 - P211: Do not spray on an open flame or other ignition source.
 - P251: Pressurized container: Do not pierce or burn, even after use.
 - P271: Use only outdoors or in a well-ventilated area.
 - P201: Obtain special instructions before use.
 - P202: Do not handle until all safety precautions have been read and understood.
 - P280: Wear protective gloves, protective clothing eye and face protection.
 - P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
 - P264: Wash hands and contaminated body parts after handling.
 - P273: Avoid release to the environment.
- Response :
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
 - P321: Specific treatment (see details on the label).
 - P332+P313: If skin irritation occurs: Get medical advice/ attention.
 - P362: Take off contaminated clothing and wash before reuse.
 - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P337+P313: If eye irritation persists: Get medical advice/ attention.
 - P304+P340: IF INHALED: Remove victims to fresh air and keep at rest in a position comfortable for breathing.
 - P312: Call a POISON CENTER or doctor/ physician if you feel unwell.
- Storage :
- P410+ P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F
 - P405: Store locked up.
- Disposal :
- P501: Dispose of contents/ container to appropriate waste reclaimer in accordance with local and national regulations.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Hazardous Components

Chemical Identity	CAS No.	% w/w	Hazard category
Liquefied Petroleum Gases	68476-85-7	20 – 30%	1. H220: Flammable gases, cat. 1
Toluene	108-88-3	10 – 30 %	1. Flammable liquids, cat.2 - H225 2. Skin corrosion/ irritation, cat. 2 - H315 3. Toxic to reproduction, cat. 2 - H361 4. STOT (single), cat. 3 - H336 / narcotic effect 5. STOT (repeated), cat. 2 - H373 6. Aspiration hazard, cat. 1 - H304 7. Acute toxic to aquatic, cat. 2 - H401
PMA	108-65-6	5 – 15 %	1. Flammable liquid, cat. 3 - H226
Acetone	67-64-1	1 – 10%	1. Flammable liquid and vapour, cat. 2 - H225 2. Eye damage/ irritation, cat. 2B - H320 3. STOT (single), cat. 3 - H336 (narcotic effect) 4. Aspiration hazard, cat. 2 - H305

Ethyl Acetate	141-78-6	1 – 10 %	<ol style="list-style-type: none"> 1. Flammable liquids, cat. 2 - H225 2. Eye damage/ irritation, cat. 2A - H319 3. STOT (single), cat. 3 - H336
Butyl Glycol	111-76-2	0 – 5 %	<ol style="list-style-type: none"> 1. Combustible liquid - H227 2. Harmful if swallowed - H302 3. Harmful in contact with skin - H312 4. Harmful if inhaled - H332 5. Causes skin irritation - H315 6. Causes serious eye irritation - H319

4. FIRST-AID MEASURES

- Inhalation** : Remove to fresh air, if rapid recovery does not occur, transport to nearest medical facility for additional treatment.
- Skin contact** : Remove contaminated clothing. In a shower, wash affected area with soap and water at least 15 minutes. Seek medical attention if irritant occurs or persists. Wash clothing before reuse.
- Eye contact** : Remove contact lenses, if present. Immediately flush eyes with plenty of clean running water at least 15 minutes while holding eyelids open. If eye irritation, burning sensation, redness, swelling and/ or blurred vision. Transport to the nearest medical facility for additional treatment.
- Ingestion** : If swallowed, do not induce vomiting, transport to the nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
- Most important Symptom/ Effect, Acute & Delayed** : Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters.
 Eye irritation signs and symptoms may include a burning sensation, redness, swelling and/or blurred vision.
 Breathing of high concentration vapors may cause central nervous system (CNS) depression resulting in dizziness, lightheadedness, headache, nausea, lightheadedness, headache, nausea and loss of coordination.
 Prolonged or repeated exposure may cause damage to organs (CNS and respiratory tract)

5. FIRE FIGHTING MEASURES

- Suitable extinguishing media** : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
- Unsuitable extinguishing** : Do not use water in a jet.
- Specific hazard arising from chemicals** : The combustion can emit the irritating and toxic vapors/ fumes as carbon monoxide, carbon dioxide. The vapor is heavier than air, spreads along the ground and distant ignition is possible
- Protective equipment & precautions for fire fighters** : Wear protective clothing and self-contained breathing apparatus.
- Additional advice** : Keep adjacent containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, Protective equipment and Emergency procedures** : Isolate hazard area and deny entry to unnecessary or unprotected personnel. Step up wind and keep out of low areas. Avoid contact with spilled or released material. Immediately take off contaminated clothing. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding all equipments. Monitor area with combustible indicator. Wear full protective clothing and self-contained breathing apparatus.
- 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.
 Authorities should be notified if reportable quantity release occurs.
- Method and material for containment and clean up** : For small liquid spills (< 1 drum): transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal.
 For large liquid spills (> 1 drum): Perform with same method for small liquid spills. Retain as contaminated waste. Recover or recycle if possible.

7. HANDLING AND STORAGE

- Precautions for safe handling** : Avoid inhale vapour and/or mist. Avoid contact with skin, eye and clothing. Only use in a well-ventilated area. Wash thoroughly after handling. Do not smoke. Remove ignition sources. Avoid sparks. Keep container closed when not in use. Handling temperature: Ambient.
- Conditions for safe storage/ Including any incompatibility** : Keep away from aerosol, flammables, incompatible materials such as oxidizing agent, corrosive and other flammable products. The container should be labelled and keep tightly closed. Keep in a well-ventilated place. Keep cool.
Protect from sunlight.
Do not expose to temperature exceeding 50 °C/ 122 °F.
- Recommended materials** : For container, use mild steel or stainless steel.
Unsuitable materials : Avoid prolonged contact with natural, butyl or nitrile rubbers.
Container advice : Containers, even those that have been emptied can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operation on or near containers.

8. EXPOSURE CONTROL/ PERSONAL PROTECTION

Threshold limit for exposure control

Occupation exposure limits

Material	ACGIH TLV		Remark
	TWA	STEL	
Liquefied Petroleum Gases	1000 ppm	-	
Toluene	20 ppm	-	
Ethyl Acetate	400 ppm	-	
Butyl Glycol Ether	20 ppm	-	
PMA	50 ppm	-	Source : EU IOELV

- Appropriate engineering control** : Select controls based on a risk assessment of local circumstances. Appropriate measures include: Use sealed systems as far as possible. Adequate ventilation to control airborne concentrations below the exposure guidelines/limits are recommended.
- Individual protection measures**
- Respiratory protection : If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for organic gases and vapours [boiling point >65 °C (149 °F)] meeting EN14387. Where respiratory protective equipment is required, use a full-face mask. Where air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.
- Hand protection : Using gloves constructed of chemical resistant materials such as heavy nitrile rubber if frequent or prolonged contact is expected. Neoprene or PVC gloves also be using in case of incidental contact or splash protection. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly.
- Eye protection : Chemical splash goggles (chemical monogoggles). Eye washes and showers for emergency use are recommended to the work area.
- Protective clothing : Protective gloves, safety shoes and boots are recommended.
- Remarks : Personal protective equipment is not considered to long term solution of exposure control.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Physical appearance : Aerosol.
- Color : Black.

Odor : Specific odour

Initial Boiling Point : No data

Melting Point : No data

Flash point : - 73 °C (Based on the lowest flash point material, spray propellant (LPG – Liquefied Petroleum Gas)

Flammable limit	:	Lower (%) – 2.1 Upper (%) – 9.5 Based on the data of spray propellant (LPG – Liquefied Petroleum Gas)
Kinematic viscosity	:	No data
Density	:	No data
Air Vapour Pressure @ 30 °C	:	4.5 – 5 kg/cm ²
Water solubility	:	Immiscible

10. STABILITY AND RELIABILITY

Chemical stability	:	Stable under normal conditions of use.
Possibility of hazardous reaction	:	No data
Condition to avoid	:	Avoid from heat, sparks, open flames and other ignition sources. Do not exposure to sunlight and/ or the temperature exceeding 50 °C (122 °F)
Incompatible materials	:	Strong oxidizing agent
Hazardous decomposition products	:	A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and organic compounds may be evolved when this material undergoes combustion or thermal or oxidative degradation.

11. TOXICOLOGICAL INFORMATION

Basis of assessment	:	Information given is based on product data, mixtures of product and/ or the similar product and/ or ingredients.
Acute oral toxicity	:	Low of toxicity : LD50 > 5000 mg/kg
Acute dermal toxicity	:	Low of toxicity : LD50 > 5000 mg/kg
Acute inhalation toxicity	:	Expected to be low of toxicity if inhaled.
Skin corrosion/ irritation	:	Prolong or repeated exposure causes the irritation to skin.
Serious eye damage/ irritation	:	Causes serious eye irritation.
Respiratory tract irritation	:	High concentration of vapor exposure may cause the irritation of respiratory tract.
Aspiration hazard	:	No data
Germ cell mutagenicity	:	Not mutagenic.
Carcinogenicity	:	No data
Reproductive and Developmental Toxicity	:	Suspected of damaging fertility or the unborn child. Does not impair fertility.
Specific Target Organ Toxicity (Single)	:	The exposure with high concentration causes damage to organs includes CNS and respiratory tract. Vapors may cause drowsiness and dizziness.
Specific Target Organ Toxicity (Repeated)	:	Prolonged or repeated exposure may cause dermatitis through the drying action of solvent. Prolonged or repeated inhalation exposure to high concentration of vapours may affect the Central Nervous System.

Other information : No other adverse health effects are expected if the product is handled in accordance with the safety data sheet and the product label.

12. ECOLOGICAL INFORMATION

Basis for Assessment : The information given below is based partly on a knowledge of the components and the ecotoxicology of similar products.

Acute Toxicity : No data.

Chronic Toxicity : No data.

Mobility : This substance contains highly volatile material that will rapidly evaporate to the air.

Persistence/degradability : Some parts of product are readily biodegradable while the others are expected to be slowly biodegradable.

Bioaccumulative potential : No data.

13. DISPOSAL CONSIDERATION

Material disposal : Recover or recycle if possible. It is responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Waste product should not be allowed to contaminate soil or water.

Container disposal : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Send a disposal container to drum recover or metal reclaimier.

14. TRANSPORT INFORMATION

	ADR /RID	IMDG	IATA
UN Number	1950	UN 1950	1950
Proper Shipping Name	Aerosols	AEROSOLS	Aerosols
Class	2.1	2.1	2.1
Packing group	N.A.	N.A.	N.A.
Special Precautions	Protect from direct sunlight. Product must be store below 50 °C	Protect from direct sunlight. Product must be store below 50 °C	-

15. REGULATORY INFORMATION

- Hazardous substances ACT, B.E. 2535 (1992)
- Notification of statement of the hazardous substances committee subject to Transportation of Dangerous Goods by road B.E. 2545 (2002)
- Notification of the Ministry of Industry subject to responsibility of Department of Industrial Works for hazardous substances containment B.E. 2551 (2008)
- Notification of the Ministry of Industry subject to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) B.E. 2555 (2012)

16. OTHER INFORMATION

SDS version : 1.0

Date of Issue : 04.01.2021

Disclaimer : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be constructed as guaranteeing any specific property of the product.

All rights reserved to inform the precise quantity of constituents in the product. By reason is confidential of the company which could not reveal or propagate to the public.