



International Carbide Technology Co., Ltd. (INCA Tech)

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SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Fire Coating
Product code : DC7120

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fireproof for steel

1.3. Supplier

International Carbide Technology Co., Ltd.
No.250 ,Sec.2, Youguan Rd., Luzhu Dist., Taoyuan City 338, Taiwan
Tel: 886-3-3240001 / Fax: 886-3-3240006

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute toxicity (oral) Category 4 Harmful if swallowed
Serious eye damage/eye irritation Category 2B Causes eye irritation

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : Harmful if swallowed
Causes eye irritation

Precautionary statements (GHS-US) : Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
If swallowed: Call a POISON CENTER, a doctor if you feel unwell
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Rinse mouth.
If eye irritation persists: Get medical advice/attention.
Dispose of contents/container to comply with applicable local, national and international regulation.

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Titanium dioxide is in a form that is not available for respiration.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Ammonium polyphosphate	(CAS-No.) 68333-79-9	20 - 30	Acute Tox. 4 (Oral), H302 Eye Irrit. 2B, H320
Titanium dioxide	(CAS-No.) 13463-67-7	10 - 20	Carc. 2, H351

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Move the affected person away from the contaminated area and into the fresh air. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Get medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)

- Potential Adverse human health effects and symptoms : Harmful if swallowed. Causes serious eye irritation.
- Symptoms/effects after skin contact : May cause slight temporary irritation.
- Symptoms/effects after eye contact : Causes eye irritation.
- Symptoms/effects after ingestion : Harmful if swallowed.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

- Fire hazard : The product is not flammable. Supports combustion. On combustion forms: Carbon oxides (CO, CO₂). Nitrogen oxides. Metal oxides.
- Explosion hazard : Risk of explosion if heated under confinement.
- Reactivity : Stable under normal conditions of use.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid contact with eyes. Avoid breathing mist, vapors. Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel. Wear recommended personal protective equipment.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection. Use self-contained breathing apparatus. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Small spills: Stop leak if safe to do so. Dilute with plenty of water. Absorb remaining liquid with sand or inert absorbent and remove to safe place. Dispose of at a licensed waste collection center. In case of large spillages: Approach from upwind. Wash contaminated area with large amounts of water. Consult an expert on waste disposal or treatment. For further information refer to section 13. See Heading 1. Emergency telephone number.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with eyes. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing mist, vapors.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Incompatible materials. Keep container closed when not in use.
- Incompatible materials : Strong acids. alkalis. Oxidizing agent. Organic solvents.
- Storage temperature : $\approx 5 - 35\text{ }^{\circ}\text{C}$ (Use up as soon as possible after opening the lid)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ammonium polyphosphate (68333-79-9)		
Not applicable		
Titanium dioxide (13463-67-7)		
ACGIH	Local name	Titanium dioxide
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
ACGIH	Remark (ACGIH)	LRT irr; A4
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³
OSHA	Regulatory reference (US-OSHA)	OSHA
IDLH	US IDLH (mg/m ³)	5000 mg/m ³

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Impermeable protective gloves. Protective gloves made of rubber or PVC

Eye protection:

Chemical goggles or safety glasses

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. If the occupational exposure limit is exceeded: Wear a self contained breathing apparatus. suitable respiratory equipment (breathing apparatus with filter)

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Viscous.
- Color : white Gray
- Odor : characteristic
- Odor threshold : No data available
- pH : 6.5 - 9.5
- Melting point : No data available
- Freezing point : No data available
- Boiling point : $> 100\text{ }^{\circ}\text{C}$
- Flash point : No data available

Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 1.4±0.1 (Specific gravity)
Solubility	: Miscible with water.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 10000 - 30000 cP
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids. Organic solvents. alkalis. Oxidizing agent.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature. On combustion forms: Nitrogen oxides. Carbon oxides (CO, CO₂). Metal oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Oral: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

ATE US (oral)	1197 mg/kg body weight
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Ammonium polyphosphate (68333-79-9)

LD50 oral rat	300 - 2000 mg/kg
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Titanium dioxide (13463-67-7)

LD50 oral rat	> 10000 mg/kg
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Skin corrosion/irritation	: Not classified pH: 6.5 - 9.5
Serious eye damage/irritation	: Causes eye irritation. pH: 6.5 - 9.5
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified.

Fire Coating

Additional information	Titanium dioxide is in a form that is not available for respiration
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Titanium dioxide (13463-67-7)

IARC group	2B - Possibly carcinogenic to humans
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Titanium dioxide (13463-67-7)

In OSHA Hazard Communication Carcinogen list	Yes
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Likely routes of exposure	: Ingestion. Inhalation. Skin and eye contact.
Potential Adverse human health effects and symptoms	: Harmful if swallowed. Causes serious eye irritation.
Symptoms/effects after skin contact	: May cause slight temporary irritation.
Symptoms/effects after eye contact	: Causes eye irritation.
Symptoms/effects after ingestion	: Harmful if swallowed.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information**12.1. Toxicity****Ammonium polyphosphate (68333-79-9)**

LC50 fish 1	> 500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
LC50 fish 2	123 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

12.2. Persistence and degradability**Fire Coating**

Persistence and degradability	Not established.
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12.3. Bioaccumulative potential**Fire Coating**

Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations**13.1. Disposal methods**

Product/Packaging disposal recommendations : Dispose of contents/container to comply with applicable local, national and international regulation, a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

SECTION 14: Transport information**Department of Transportation (DOT)**

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

Ammonium polyphosphate (68333-79-9)

Listed on the Canadian DSL (Domestic Substances List)

Titanium dioxide (13463-67-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Ammonium polyphosphate (68333-79-9)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Titanium dioxide (13463-67-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations


Ammonium polyphosphate (68333-79-9)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

Titanium dioxide (13463-67-7)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

 **WARNING:** This product can expose you to Titanium dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	Carcinogenicity	Developmental toxicity	Reproductive toxicity male	Reproductive toxicity female	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Titanium dioxide(13463-67-7)	X					

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 08 August 2018

Other information : None.

Full text of H-phrases:

H302	Harmful if swallowed
H320	Causes eye irritation
H351	Suspected of causing cancer

Abbreviations and acronyms:

	PVC (Polyvinyl chloride).
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SDS US (GHS HazCom 2012)

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 construed as guaranteeing any specific property of the product