SECTION 1: Identification

1.1 GHS Product identifier

Product name 3-isopropylphenyl methylcarbamate

1.2 Other means of identification

Product number -
Other names m-Isopropylphenyl N-methylcarbamate;Hercules AC 5727;m-Cumenyl methylcarbamate

1.3 Recommended use of the chemical and restrictions on use

Identified uses Insecticide
Uses advised against no data available

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Acute toxicity - Category 3, Oral
Acute toxicity - Category 1, Dermal

2.2 GHS label elements, including precautionary statements

Pictogram(s)

Signal word Danger
Hazard statement(s) H301 Toxic if swallowed
H310 Fatal in contact with skin

Precautionary statement(s)
Prevention P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P262 Do not get in eyes, on skin, or on clothing.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
Response P301+P316 IF SWALLOWED: Get emergency medical help immediately.
P321 Specific treatment (see ... on this label).
P330 Rinse mouth.
P302+P352 IF ON SKIN: Wash with plenty of water/...
P316 Get emergency medical help immediately.
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
Storage P405 Store locked up.
Disposal P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.3 Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
3-isopropylphenyl methylcarbamate	3-isopropylphenyl methylcarbamate	64-00-6	200-572-3	100%

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

4.2 Most important symptoms/effects, acute and delayed

It is a cholinesterase inhibitor. (EPA, 1998)

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Maintain an open airway and assist ventilation if necessary. Pay careful attention to respiratory weakness; sudden respiratory arrest may occur. This is often preceded by increasing weakness of neck flexion muscles. If intubation is required, note the potential for interaction between neuromuscular blockers and cholinesterase inhibitors. Administer supplemental oxygen. Treat hydrocarbon pneumonitis, seizures, and coma if they occur. Observe asymptomatic patients for at least 8-12 hours to rule out delayed onset symptoms especially after extensive skin exposure or ingestion of a highly fat-soluble agent. Specific treatment includes the antimuscarinic agent atropine and the enzyme reactivator pralidoxime. ... Do not induce vomiting because of the risk of abrupt onset of toxicity. ... Administer activated charcoal (cathartics are not necessary if the patient already has diarrhea). Consider inserting a small flexible gastric tube to aspirate liquid gastric contents, if this procedure can be carried out safely and within 1-2 hours of ingestion. The inadvertent introduction of hydrocarbon solvents into the lungs through overly aggressive gastric lavage may kill the patient.) Organophosphorus and Carbamate insecticides

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Non-Specific -- Carbamate Pesticide, Solid, n.o.s.) Wear positive pressure breathing apparatus and special protective clothing. Move container from fire area if you can do it without risk. Dike fire control water for later disposal; do not scatter the material. Fight fire from maximum distance. (Non-Specific -- Carbamate Pesticide, Solid, n.o.s.) Extinguish with dry chemical, carbon dioxide, water spray, fog, or foam. (EPA, 1998)

5.2 Specific hazards arising from the chemical

Non-Specific -- Carbamate Pesticide, Solid, n.o.s.) Container may explode in heat of fire. When heated to decomposition, it emits toxic fumes of nitrogen oxides. Incompatible with alkalis. Avoid decomposing heat. (EPA, 1998)

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours.Avoid contacting with skin and eye. Use personal protective equipment.Wear chemical impermeable gloves. Ensure adequate ventilation.Remove all sources of ignition. Evacuate personnel to safe areas.Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. 2-(1-methylethyl)phenyl methylcarbamate

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Pure white solid without appreciable odor. Used as an insecticide to protect cotton, fruit, vegetables and field crops. Not registered as a pesticide in the U.S. (EPA, 1998)
Colour	White crystalline solid
Odour	Odorless
Melting point/freezing point	72 to 74ÂºC
Boiling point or initial boiling point and boiling range	260.9ÂºC at 760 mmHg
Flammability	no data available
Lower and upper explosion limit/flammability limit	no data available
Flash point	111.6ÂºC
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	10% in isophorone; 10% in xylene; 20% in toluene; 20% in toluene; 40% in isopropanol; 50% in acetone; 60% in dimethylformamide. Practically insoluble in cyclohexane.
Partition coefficient n-octanol/water	log Kow = 2.63
Vapour pressure	4.4X10-3 mm Hg at 25 deg C /Estimated/
Density and/or relative density	1.039g/cm3
Relative vapour density	no data available
Particle characteristics	no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No rapid reaction with air. No rapid reaction with water.

10.2 Chemical stability

This cmpd is stable to heat, light, & hydrolysis under normal conditions.

10.3 Possibility of hazardous reactions

PHENOL, 3-(1-METHYLETHYL)-, METHYLCARBAMATE is a carbamate ester. Carbamates are chemically similar to, but more reactive than amides. Like amides they form polymers such as polyurethane resins. Carbamates are incompatible with strong acids and bases, and especially incompatible with strong reducing agents such as hydrides. Flammable gaseous hydrogen is produced by the combination of active metals or nitrides with carbamates. Strongly oxidizing acids, peroxides, and hydroperoxides are incompatible with carbamates.

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

When heated to decomposition it emits toxic fumes of /nitrogen oxides/.

SECTION 11: Toxicological information

Acute toxicity

- Oral: LD50 Rat male oral 31.0 mg/kg
- Inhalation: no data available

- Dermal: LD50 Rat male percutaneous 1500 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

SECTION 12: Ecological information

12.1 Toxicity

- Toxicity to fish: LC50 Lepomis macrochirus (Bluegill) 82 ug/L/24 hr (95% confidence interval: 42-162 ug/L); static /formulated product
- Toxicity to daphnia and other aquatic invertebrates: EC50 Daphnia magna (Water flea; intoxication, immobilization) 5 ug/L/30 min; static /formulated product
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

12.2 Persistence and degradability

AEROBIC: While data specific to 3-isopropylphenyl methyl carbamate are lacking(SRC), numerous genera of carbamate-hydrolyzing bacteria have been identified, including Pseudomonas, Arthrobacter, Bacillus, Nocardia, Achromobacter, Flavobacterium, Streptomyces, Alcaligenes, Azospirillum, Micrococcus, and Rhodococcus(1).

12.3 Bioaccumulative potential

An estimated BCF of 21 was calculated for 3-isopropylphenyl methyl carbamate(SRC), using a log Kow of 2.63(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC), provided the compound is not altered physically or chemically once released into the environment(SRP).

12.4 Mobility in soil

The Koc of 3-isopropylphenyl methyl carbamate is estimated as 640(SRC), using a log Kow of 2.63(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that 3-isopropylphenyl methyl carbamate is expected to have moderate mobility in soil.

12.5 Other adverse effects

no data available

SECTION 13: Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

14.1 UN Number

ADR/RID: UN2757 (For reference only, please check.) IMDG: UN2757 (For reference only, please check.) IATA: UN2757 (For reference only, please check.)

14.2 UN Proper Shipping Name

ADR/RID: CARBAMATE PESTICIDE, SOLID, TOXIC (For reference only, please check.) IMDG: CARBAMATE PESTICIDE, SOLID, TOXIC (For reference only, please check.) IATA: CARBAMATE PESTICIDE, SOLID, TOXIC (For reference only, please check.)

14.3 Transport hazard class(es)

ADR/RID: 6.1 (For reference only, please check.) IMDG: 6.1 (For reference only, please check.) IATA: 6.1 (For reference only, please check.)

14.4 Packing group, if applicable

ADR/RID: I (For reference only, please check.) IMDG: I (For reference only, please check.) IATA: I (For reference only, please check.)

14.5 Environmental hazards

ADR/RID: No IMDG: No IATA: No

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
3-isopropylphenyl methylcarbamate	3-isopropylphenyl methylcarbamate	64-00-6	200-572-3
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed.
China Catalog of Hazardous chemicals 2015			Listed.
New Zealand Inventory of Chemicals (NZIoC)			Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed.
Vietnam National Chemical Inventory			Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed.
Korea Existing Chemicals List (KECL)			Not Listed.

SECTION 16: Other information

Information on revision

Creation Date	July 15, 2019
Revision Date	July 15, 2019

Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:

http://www.phmsa.dot.gov/hazmat/library/erg

- Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
- ECHA - European Chemicals Agency, website: https://echa.europa.eu/