

1. Identification

Product identifier Smoke Generating Device
Other means of identification 072608, 072618, 072628, 072638
Recommended use None.
Recommended restrictions Restricted to professional users. None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Oatey Co.
Division Cherne Industries Incorporated
Address 5700 Lincoln Drive
Minneapolis, MN 55436

Telephone 216-267-7100
E-mail info@oatey.com
Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)
Emergency First Aid 1-877-740-5015
Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Carcinogenicity Category 1B
OSHA defined hazards Not classified.

Label elements



Signal word Danger
Hazard statement May cause cancer.
Precautionary statement
Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.
Response If exposed or concerned: Get medical advice/attention.
Storage Store locked up.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information

After ignition, this product emits smoke (mild Zinc Chloride solution) that can be irritating to the eyes, respiratory tract, and mucous membranes. when used as directed exposure should be limited and normally poses no hazard. Persons with known respiratory sensitivity should not be exposed to smoke. Moderate exposure may temporarily result in irritation, inflammation, and difficulty breathing-moving to fresh air will reverse these effects. Heavy exposure may result in coughs, chills, fever, and pulmonary edema, requiring medical treatment. Overwhelming exposure can be dangerous and is to be avoided. Persons who will be exposed to sustained heavy smoke should wear self contained breathing apparatus (SCBA).

NOTE: Exposure is highly unlikely when product is used as directed. Product is sealed in heavy cardboard tube or metal canister. After ignition, product slowly combusts and hexachloroethane is consumed. Direct contact with product does not occur.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Hexachloroethane	67-72-1	30-55

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists. Remove contaminated clothing and shoes.
Eye contact	Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur. Do not induce vomiting.
Most important symptoms/effects, acute and delayed	May cause cancer.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	DO NOT use water if avoidable.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Material may react with water.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk. Large Spills: Shovel the material into waste container. Clean surface thoroughly to remove residual contamination. Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Persons with known respiratory sensitivity should not be exposed to smoke. Moderate exposure may temporarily result in irritation, inflammation, and difficulty breathing - moving to fresh air will reverse these effects. Heavy exposure may result in coughs, chills, fever, and pulmonary edema, requiring medical treatment. Overwhelming exposure can be dangerous and is to be avoided. Persons who will be exposed to sustained heavy smoke should wear self contained breathing apparatus (SCBA). Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep away from heat, sparks, and flame. Keep away from sources of ignition - No smoking. Store in a dry area. Protect from moisture.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Hexachloroethane (CAS 67-72-1)	PEL	10 mg/m3 1 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Hexachloroethane (CAS 67-72-1)	TWA	1 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Hexachloroethane (CAS 67-72-1)	TWA	10 mg/m3 1 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US - California OELs: Skin designation

Hexachloroethane (CAS 67-72-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Hexachloroethane (CAS 67-72-1) Skin designation applies.

US - Tennessee OELs: Skin designation

Hexachloroethane (CAS 67-72-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Hexachloroethane (CAS 67-72-1) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Hexachloroethane (CAS 67-72-1) Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Hexachloroethane (CAS 67-72-1) Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection

Chemical respirator with organic vapor cartridge, full facepiece, dust and mist filter.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Skin protection	
Other	Use of an impervious apron is recommended.
Respiratory protection	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Chemical respirator with organic vapor cartridge, full facepiece, dust and mist filter.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
	NOTE: Exposure is highly unlikely when product is used as directed. Product is sealed in heavy cardboard tube or metal canister. After ignition, product slowly combusts and hexachloroethane is consumed. Direct contact with product does not occur.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Powder contained in sealed tube or canister.
Color	Gray.
Odor	Mothballs.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.

Solubility(ies)

Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	May react with water, producing smoke.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

Conditions to avoid	Moisture. High temperatures. High humidity.
Incompatible materials	Strong acids. Strong bases. Water.
Hazardous decomposition products	Zinc chloride. Smoke. Carbon monoxide (CO). Carbon dioxide (CO ₂).

11. Toxicological information

Information on likely routes of exposure

Inhalation	Dust may irritate respiratory system. Prolonged inhalation may be harmful.
Skin contact	Dust or powder may irritate the skin.
Eye contact	Dust may irritate the eyes.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Dusts may irritate the respiratory tract, skin and eyes. May cause cancer.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test Results
Hexachloroethane (CAS 67-72-1)		
Acute		
Dermal		
LD50	Rabbit	> 32000 mg/kg
Oral		
LD50	Rat	4460 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

Hexachloroethane (CAS 67-72-1) 2B Possibly carcinogenic to humans.

NTP Report on Carcinogens

Hexachloroethane (CAS 67-72-1) Reasonably Anticipated to be a Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Components	Species	Test Results
Hexachloroethane (CAS 67-72-1)		
Aquatic		
Fish	LC50	Bluegill (Lepomis macrochirus) 0.712 - 1.03 mg/l, 96 hours
		Fathead minnow (Pimephales promelas) 0.967 - 1.25 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Hexachloroethane (CAS 67-72-1) 4.14

Mobility in soil No data available.

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number -
UN proper shipping name Classification not completed
Transport hazard class(es)
Class Not available.
Subsidiary risk -
Packing group -
Environmental hazards
Marine pollutant Yes
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number -
UN proper shipping name Classification not completed
Transport hazard class(es)
Class Not available.
Subsidiary risk -
Packing group -
Environmental hazards Yes
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number -
UN proper shipping name Classification not completed
Transport hazard class(es)
Class Not available.
Subsidiary risk -
Packing group -
Environmental hazards
Marine pollutant Yes
EmS Not available.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Zinc (CAS 7440-66-6)

1.0 % One-Time Export Notification only.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Hexachloroethane (CAS 67-72-1)

LISTED

Zinc (CAS 7440-66-6)

LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
 Delayed Hazard - Yes
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Hexachloroethane	67-72-1	30-55
Zinc	7440-66-6	≤ 1

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Hexachloroethane (CAS 67-72-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**US state regulations**

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Hexachloroethane (CAS 67-72-1)

US. Massachusetts RTK - Substance List

Hexachloroethane (CAS 67-72-1)

Zinc (CAS 7440-66-6)

US. New Jersey Worker and Community Right-to-Know Act

Hexachloroethane (CAS 67-72-1)

Zinc (CAS 7440-66-6)

US. Pennsylvania Worker and Community Right-to-Know Law

Hexachloroethane (CAS 67-72-1)

Zinc (CAS 7440-66-6)

US. Rhode Island RTK

Hexachloroethane (CAS 67-72-1)

Zinc (CAS 7440-66-6)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

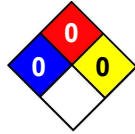
*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	17-October-2017
Revision date	24-September-2020
Version #	02
HMIS® ratings	Health: 1* Flammability: 0 Physical hazard: 0

NFPA ratings



Disclaimer

Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.