



HASA CHLORINATING GRANULES

Material Safety Data Sheet

Emergency 24 Hour Telephone: **CHEMTREC 800.424.9300**

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HASA CHLORINATING GRANULES
Material Safety Data Sheet (MSDS No. 201)

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1	Product Identification:	
1.1.1	Product Name:	HASA CHLORINATING GRANULES
1.1.2	CAS # (Chemical Abstracts Service Registry Number):	2893-78-9
1.1.3	RTECS (Registry of Toxic Effects of Chemical Substances):	XZ1900000
1.1.4	EINECS (European Inventory of Existing Commercial Substances):	220-767-7
1.1.5	Chemical Name:	Sodium dichloroisocyanurate
1.1.6	Chemical Formula:	$C_3O_3N_3Cl_3Na$
1.1.7	Synonym:	Dry Chlorinating Compound; DiChlor; Granular Chlorinating Compound; Sodium dichloroisocyanuric acid; sodium dichloro-s-triazinetriene; Dichloroisocyanuric acid.
1.1.8	Chemical Family:	Halogenated Triazines.
1.2	Recommended Uses:	Sanitizing agent for pool and spa water.
1.3	Company Identification:	Hasa Inc. 23119 Drayton Street Saugus, California 91350
1.4	Emergency Telephone:	CHEMTREC: 1-800-424-9300 (24 hour)
1.5	Non-Emergency Assistance:	661-259-5848 (8 AM – 5 PM PST / PDT)

SECTION 2: EMERGENCY OVERVIEW and HAZARD IDENTIFICATION

2.1	Emergency Overview:	Danger! Strong oxidizer. Contact with combustibles may cause fire. Contact with acids may liberate hazardous gases. Toxic to aquatic organisms. Hygroscopic. Absorbs water from atmosphere. Do not take internally. Avoid contact with eyes, skin and clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing dust. Store in a clean, cool, dry well –ventilated area. Do not store at temperatures above 60°C (140°F). This pesticide is toxic to fish and aquatic organisms.
2.2	Acute Health Effects:	
2.2.1	Eyes:	Severe irritation and/or burns can occur following eye exposure. Contact may cause impairment of vision and corneal damage.
2.2.2	Skin:	Dermal exposure can cause severe irritation and /or burns characterized by redness, swelling and scab formation. Repeated skin exposure may cause tissue destruction due to the corrosive nature of the product.
2.2.3	Inhalation:	Irritating to the nose, mouth, throat, and lungs. It may also cause burns to the respiratory tract with the production of lung edema that can result in shortness of breath, wheezing, choking, chest pain, and impairment of lung function. Inhalation of high concentrations can result in permanent lung damage from the corrosive action of the lung.
2.2.4	Ingestion:	Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding and/or tissue ulceration. Ingestion causes severe damage to the gastrointestinal tract with the potential to cause perforation.
2.2.5	Medical Conditions to be Aggravated:	Asthma, respiratory and cardiovascular disease.
2.3	Chronic Health Effects:	Chronic inhalation exposure may cause impairment of lung function and permanent lung damage.

SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS

	Ingredient	CAS No.	Weight %
3.1	Sodium dichloroisocyanurate	2893-78-9	99-100%
3.2	Sodium chloride	7647-14-5	0.1-1.0%

SECTION 4: FIRST AID MEASURES		
4.1	IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
4.2	IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
4.3	IF INHALED	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
4.4	IF SWALLOWED	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER		
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.		
NOTE TO PHYSICIAN		
Probable mucosal damage may contraindicate the use of gastric lavage.		

SECTION 5: FIRE FIGHTING MEASURES		
5.1	Extinguishing Media:	Use water spray, dry chemical, carbon dioxide or chemical foam. Contact professional fire fighters immediately. Do not use fire extinguishers containing ammonium compounds or carbon tetrachloride.
5.2	Fire/Explosion Hazards:	Negligible fire hazard. If heated by outside sources above 240°C (464°F) this product will undergo decomposition with the evolution of noxious gases but no visible flame. Wet materials may generate nitrogen trichloride and explosion hazard.
5.3	Fire Fighting Procedures:	Wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH approved (or equivalent), and full protective gear. Strong oxidizer. Contact with combustible materials may cause a fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water with caution and in flooding amounts. Contact with acid or acid fumes evolves heat and flammable vapors. Some oxidizers may react explosively with hydrocarbons (fuel). May accelerate burning if involved in a fire. Containers may explode when heated. Extinguishing media: Contact professional fire-fighters immediately. For small fires DO NOT use dry chemicals, carbon dioxide, halon or foams. USE WATER ONLY. For large fires flood fire with water from a distance.
5.4	Flammable Limits:	No information available.
5.5	Products of Combustion:	When heated to decomposition it emits very toxic fumes of chlorine and nitrogen oxides.
5.6	Fire Hazards in Presence of Various Substances:	Do not mix with other chemicals. Keep combustibles away from this product.
5.7	Sensitivity to Impact or Static Discharge:	Not sensitive.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	Small Spill:	<ul style="list-style-type: none"> • Sweep up and use in pool or spa, if possible. • DO NOT add water to spilled materials. • DO NOT use floor sweeping compounds to clean up spills. Sweep and scoop spilled material into clean, dedicated container. Every attempt should be made to avoid mixing spilled material with other chemicals or debris when cleaning up. • DO NOT attempt to reseal contaminated drums. • DO NOT transport wet or damp material. Damp material should be neutralized to a non-oxidizing state. • Keep out of water supplies and sewers.
6.2	Large Spill:	<ul style="list-style-type: none"> • Keep unnecessary people away, isolate hazard area and deny entry. • DO NOT add water to spilled materials. • DO NOT use floor sweeping compounds to clean up spills. Sweep and scoop spilled material into clean, dedicated container. Every attempt should be made to avoid mixing spilled materials with other chemicals or debris when cleaning up. • DO NOT attempt to reseal contaminated drums. • DO NOT transport wet or damp material. Damp material should be neutralized to a non-oxidizing state. • Keep out of water supplies and sewers. • Releases should be reported, if required, to appropriate agencies.
6.3	Personal Precautions:	<ul style="list-style-type: none"> • For small spills in a well-ventilated areas: wear a NIOSH approved half-face or full face tight fitting respirator or a loose fitting powered air purifying respirator equipped with chlorine cartridges. Chemical goggles should be worn when using a half-face respirator. In addition to respiratory protection, wear coveralls, chemical resistant gloves, chemical resistant footwear, and chemical resistant headgear for overhead exposure. • For clean up of large spills, or small dry spills in confined areas: wear full-face respirator with chlorine cartridges or a positive pressure supplied air respirator. Additionally, body protection should be impervious clothing covering entire body to prevent personal contact with material.
6.4	Special Remarks:	<p>CAUTION – Protection concerns must also address the following: If this material becomes damp/wet or contaminated in a container, the formation of nitrogen trichloride gas may occur and an explosive condition may exist.</p> <ul style="list-style-type: none"> • After Spillage/Leakage: Hazardous concentrations in air may be found in local spill area and immediately downwind. If spill material is still dry, so not put water directly on this product as a gas evolution may occur. • On Soil: Do not contaminate spill material with any organic materials, ammonia, ammonium salts, or urea. Clean up all spilled material with clean, dry dedicated equipment and place in clean dry container. • On Water: This material is heavier than and soluble in water. Stop flow of material into water as soon as possible. Begin monitoring for available chlorine and pH immediately. • In Air: Vapors may be suppressed by the use of water fog.

SECTION 7: HANDLING AND STORAGE

7.1	Handling:	Danger! Corrosive! Causes irreversible eye damage. Harmful if swallowed or absorbed through skin. Do not get on skin, in eyes or on clothing. Wear safety glasses goggles, or face shield, protective clothing, and rubber gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Irritating to nose and throat. Avoid breathing dust. Avoid getting water in containers.
7.2	Storage:	<ul style="list-style-type: none"> • Keep this product dry in a tightly closed container, when not in use. • Store in a cool, dry well-ventilated area away from heat and open flames. • In case of contamination or decomposition do not reseal container, If possible, isolate container in open air or well-ventilated area and flood with large quantities of water, if necessary. • Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1	Engineering Controls:	Use only in well-ventilated areas. Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.
8.2	Personal Protection:	
	8.2.1 Eyes and Face:	Wear chemical safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
	8.2.2 Respiratory:	A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. The added protection of a full face piece respirator is required when visible dusty conditions are encountered and eye irritation may occur. Acid gas cartridges with N95 filters are required when fumes or vapor may be generated. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.
	8.2.3 Skin & Body:	Wear protective clothing to minimize skin contact. When potential for contact with dry material exists, wear disposable coveralls suitable for dust exposure, such as Tyvek®. Contaminated clothing should be removed and laundered before reuse.
8.3	Additional Information (Protective material type):	Butyl rubber, Natural rubber, Neoprene, Nitrile, Polyvinyl chloride (PVC), Tyvek®
8.4	Exposure Limits:	
	8.4.1 OSHA Guidelines:	Federal guidelines treat the ingredient(s) in this product as a nuisance dust, as no product-specific guidelines have been issued for exposure. As with all nuisance dusts, worker breathing zone concentrations should be measured by validated sampling and analytical methods.
	8.4.2 OSHA PNOR (Particulates Not Otherwise Regulated):	OSHA (PEL / TWA): <ul style="list-style-type: none"> ▪ 15 mg/m³ (total dust) ▪ 1.5 mg/m³ (respirable fraction) for aluminum metal as Al.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	Physical State and Appearance:	White crystalline granules.
9.2	Odor:	Slight odor of chlorine.
9.3	Odor Threshold:	Not reported.
9.4	Molecular Weight:	219.95 g/mole
9.5	Boiling Point:	Not applicable.
9.6	Melting Point:	246.7°C (decomposes without melting)
9.7	Solubility in Water:	28g/100 g water @ 25°C
9.8	pH:	6 – 6.4 (1% aqueous solution)
9.9	Bulk Density:	0.9 – 0.95 g/cc (56-60 lb/ft ³)
9.10	Vapor Density:	Not applicable.
9.11	Vapor Pressure:	Very small, impossible to measure.
9.12	Evaporation Rate:	Not applicable.
9.13	Flash point:	> 250°C (482°F) open cup.
9.14	Percent Volatile:	Not applicable.
9.15	Auto Ignition Temperature:	Not applicable.

SECTION 10: STABILITY AND REACTIVITY

10.1	Stability:	Stable under normal conditions.
10.2	Special Remarks on Stability:	Do not package in paper or cardboard. Note: Contact with small amounts of water may result in an exothermic reaction with the liberation of toxic fumes. Conditions to Avoid: Heating above 240°C Hygroscopic. Absorbs water from atmosphere.
10.3	Incompatible Materials:	Strong reducing agents, strong bases, strong oxidizing agents, ammonia, floor sweeping compounds, organic solvents.
10.4	Hazardous Decomposition Products:	Hydrogen chloride, nitrogen oxides, carbon monoxide, carbon dioxide, phosgene, nitrogen trichloride.
10.5	Hazardous Polymerization:	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Eyes, skin, ingestion, dermal absorption.
11.2	Acute Toxicity:	
	11.2.1 Eye Irritation:	Corrosive. (rabbit)
	11.2.2 Dermal Irritation:	Corrosive. (rabbit)
	11.2.3 Dermal LD₅₀:	>2000 mg/kg (rabbit)
	11.2.4 Oral LD₅₀:	735 mg/kg (rat)
	11.2.5 Inhalation LC₅₀:	0.27-1.17 mg/L 4 hour (rat)
11.3	Target Organs:	Kidneys, liver, respiratory systems, eyes, skin.
11.4	Chronic Toxicity:	Chronic inhalation exposure may cause impairment of lung function and permanent lung damage.
11.5	Carcinogenic [Cancer Potential] Information:	
	11.5.1 NTP (National Toxicological Program 6 th Annual Report on Carcinogens):	Not Listed.
	11.5.2 IARC (International Agency for Research on Cancer Monographs, V. 1-100):	Not Listed.
	11.5.3 OSHA (Occupational Safety & Health Administration):	Not Listed.

SECTION 12: ECOLOGICAL INFORMATION

12.1	Ecotoxicity:	FIFRA PR Notice 93-10: This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water board or Regional Office of the EPA.
12.2	Aquatic Toxicity:	
	12.2.1 Fish (LC ₅₀)	0.28 mg/L blue gill sunfish (96 hour) 0.22 mg/L rainbow trout (96 hour)
	12.2.2 Invertebrate (LC ₅₀)	0.2 mg/L daphnia magna (48 hour).
12.3	Avian Toxicity:	
	12.3.1 Bobwhite quail:	Acute oral LD ₅₀ : 730 mg/kg Dietary LC ₅₀ : >10,000 ppm
	12.3.2 Mallard duck:	Acute oral LD ₅₀ : 3300 mg/kg Dietary LC ₅₀ : >10,000 ppm
12.4	Chemical Fate:	No information found

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste Disposal: Never place unused product down any indoor or outdoor drain. Observe all federal, state, and local environmental regulations when disposing of this material. If this product becomes waste, it will be a hazardous waste that is subject to the Land Disposal Restriction under 40 CFR 268 and must be managed accordingly. Care must be taken to prevent environmental contamination from the use of this material. For product that cannot be used, call your local solid waste agency for disposal instructions.
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SECTION 14: TRANSPORT INFORMATION

14.1	US D.O.T.		
		Inside packages up to 2.2 pounds.	Inside packages over 2.2 pounds.
14.1.1	Proper Shipping Name:	Consumer Commodity	Dichloroisocyanuric Acid Salts.
14.1.2	Hazard Class:	ORM-D	5.1
14.1.3	UN ID Number:	Not applicable	UN2465
14.1.4	Labels:	ORM-D	Oxidizer 5.1
14.1.5	Placards:	None required	Oxidizer 5.1
14.1.6	Markings:	None required	Oxidizer 5.1
14.1.7	RQ:	Not applicable	None
14.1.8	Packing Group:	None required	PG II
14.2	<p>“Materials of Trade” Exceptions. Under certain conditions, spa and pool maintenance chemicals may be loaded into pool service and builders trucks and shipped as a MOT, not subject to DOT regulations. A MOT means a hazardous material, other than a hazardous waste, that is carried on a motor vehicle – by a private motor carrier in direct support of his/her principal business that is other than transportation by motor vehicle.</p> <p>To qualify as a MOT, the hazardous material must fit into any one of the following classes or divisions (but not limited to) Oxidizer (Division 5.1) or Consumer Commodities (ORM-D).</p> <p>Quantity Limit for MOT: For Oxidizer (Class 5.1) that belongs to Packing Group II or III, or is a consumer commodity (ORM-D) – the maximum amount of material in each package is 30 kg (66 lbs) for solids, or 30 L (8 gal) for liquids. The aggregate gross weight of all MOTs on a motor vehicle may not exceed 200 kg (440 pounds).</p> <p>Packaging requirement:</p> <ol style="list-style-type: none"> 1. Packagings must be leak tight for liquids and gases, sift proof for solids, and be securely closed, secured against shifting, and protected against damage. 2. Each material must be packaged in the manufacturer's original packaging, or a packaging of equal or greater strength and integrity. 3. Outer packagings are not required for receptacles (e.g., cans and bottles) that are secured against shifting in cages, carts, bins, boxes or compartments. <p>Hazard communication:</p> <ul style="list-style-type: none"> • A non-bulk packaging other than a cylinder (including a receptacle transported without an outer packaging) must be marked with a common name or proper shipping name to identify the material it contains, including the letters “RQ” if it contains a reportable quantity of a hazardous substance. • The operator of a motor vehicle that contains a material of trade must be informed of the presence of the hazardous material (including whether the package contains a reportable quantity) and must be informed of the requirements of 49 CFR §173.6. <p>Other exceptions: A MOT may be transported on a motor vehicle under the provisions of 49 CFR §173.6 (e) with other hazardous materials without affecting its eligibility for these exceptions. The MOTs regulations do not require:</p> <ul style="list-style-type: none"> • shipping papers; • emergency response information; • placarding; or • formal training or retention of training records. 		
14.3	<p>Non “Material of Trade”. Shipments not exempt from DOT HAZMAT requirements as “Materials of Trade” must be handled, loaded, and shipped as “hazardous materials”. Hazardous materials shipments are subject to DOT regulations and require that each employee who handles these materials to be trained and qualified as a “HAZMAT employee” and his employer becomes a “HAZMAT employer”.</p>		
14.4	Canadian TDG (Transportation of Dangerous Goods)		
	14.4.1	Shipping Name:	Dichloroisocyanuric acid salts.
	14.4.2	UN ID Number:	UN2465
	14.4.3	Hazard Class:	5.1
	14.4.4	Packing Group:	PG II

SECTION 15: REGULATORY INFORMATION

15.1	U.S. Regulations:	
15.1.1	OSHA HAZCOM (Hazard Communication)	This material is considered hazardous by the HAZCOM Standard (29 CFR 1910.1200)
15.1.2	OSHA PSM (Process Safety Management)	Not regulated under PSM Standard (29 CFR 1910.119)
15.1.3	EPA FIFRA (Federal Insecticide, Fungicide and Rodenticide Act)	EPA Reg. No. :10897-31 (Registered pesticide under 40 CFR 152.10)
15.1.4	EPA EPCRA (Emergency Planning and Community Right-to-Know Act)	Section 302 – TPQ: not listed. Section 304 - RQ: not listed. Section 313 – not on TRI list.
15.1.5	EPA SARA (Superfund Amendments and Reauthorization Act) Title III (Section 311/312)	Acute: Yes Chronic: No Fire: Yes Reactive: Yes Sudden Release: No
15.1.6	SARA Title III (Section 313)	This product does not contain a chemical listed at or above de minimis concentrations.
15.1.7	EPA TSCA (Toxic Substance Control Act)	All components are listed or exempted. TSCA 12(b): This product is not subject to export notification.
15.1.8	EPA CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)	102a/103 Not regulated
15.1.9	EPA RMP (Risk Management Plan)	Not regulated. (40 CFR 68.130)
15.1.10	EPA RCRA (Resource Conservation and Recovery Act):	If this product becomes waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D001.
15.1.11	FHSA (Federal Hazardous Substances Act):	Complies.
15.2	State of California Regulations:	
15.2.1	CDPR (California Department of Pesticide Regulation)	Reg. No.10897-31-AA
15.2.2	CalARP (California Accidental Release Prevention Program)	Not regulated.
15.3	Canada Regulations:	
15.3.1	WHMIS (Workplace Hazardous Materials Information System) Classification:	C - Oxidizing material D2B - Poisonous and infectious material - Other effects – Toxic
15.3.2	WHMIS Health Effects Criteria Met by this Chemical:	D1B - Acute lethality - toxic – immediate D2B - Eye irritation - toxic – other D2B - Skin irritation - toxic - other
15.3.3	WHMIS (Ingredient Disclosure List):	Included for disclosure at 1% or greater.
15.3.4	Canada DSL (Domestic Substances List)	All components of this product are on the DSL.

Note: Due to the changing nature of regulatory requirements, the REGULATORY INFORMATION listed above should NOT be considered all-inclusive or authoritative. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

SECTION 16: OTHER INFORMATION			
16.1	HMIS III (Hazardous Materials Identification System):		
	16.1.1	HEALTH	3
	16.1.2	FLAMMABILITY	0
	16.1.3	PHYSICAL HAZARD	2
	16.1.4	PERSONAL PROTECTION:	Section 8
16.2	NFPA 704 (National Fire Protection Association):		
	16.2.1	HEALTH	2
	16.2.2	FLAMMABILITY	0
	16.2.3	REACTIVITY	2
	16.2.4	SPECIAL	OX
			
16.3	ANSI (American National Standards Institute):		
	16.3.1	Hazardous Industrial Chemicals - Material Safety Data Sheets-Preparation:	Complies with ANSI Z400.1 – 2004.
	16.3.2	Hazardous Industrial Chemicals - Precautionary Labeling:	Complies with ANSI Z129.1 – 2006.
16.4	GHS (Globally Harmonized System):		
	16.4.1	GHS Classification:	Acute Toxicity Inhalation (Category 2) Acute Toxicity Oral (Category 4)
	16.4.2	GHS Symbol:	
	16.4.3	GHS Signal Word:	Danger
	16.4.4	GHS Hazard Statement:	Fatal if inhaled

NOTE: The information contained herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge and belief. NO WARRANTY OR GUARANTEE, express or implied, is made regarding the product performance, product stability, or as to any other condition of use, handling, transportation, and storage. Customer use, handling, transportation, and storage may involve additional safety and/or performance considerations. Our technical personnel will be happy to respond to questions regarding safe handling, storage, transportation, and use procedures. The safe handling, storage, transportation, and use procedures remain the sole responsibility of the customer. No suggestions for handling, storage, transportation, or use are intended as or to be construed as recommendations which may infringe on any existing patents or violate any Federal, State, and/or local law and/or regulation, ordinance, standard, etc. This Material Data Safety Sheet has been prepared by Hasa, Inc. according to Hazard Communication Guidelines for Compliance (OSHA 3111) published by U.S. Department of Labor, Occupational Safety and Health Administration and Hasa, Inc. can rely on the information received from its suppliers and Hasa Inc. has no independent duty to analyze the chemical or evaluate the hazards of it.