

Dyne

Preparation Date: 26-Nov-2007

Revision Date: 29-May-2015

Revision Number: 2

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Name Dyne

Other means of identification

Item#: 0108

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Formulated acidic detergent with an iodophor sanitizer for removing milkstone, protein, and mineral deposits, Restricted to professional users

Uses advised against No information available

Details of the supplier of the safety data sheet

Emergency Telephone Number

Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3

Sulfuric acid and other mineral acids mist statement

The International Agency for Research on Cancer (IARC) has classified "strong inorganic acid mists containing sulfuric or other strong mineral acids (such as Hydrochloric and Nitric acid) as a known human carcinogen, (IARC category 1). This classification applies only to mists containing such mineral acids and not to the specific acids or their solutions, unless otherwise noted.

Flammable liquids	Category 3
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Label Elements

Emergency Overview

DANGER

Hazard Statements

Causes severe skin burns and eye damage

May cause cancer

May cause drowsiness or dizziness

Flammable liquid and vapor



Appearance Dark brown	Physical state Liquid	Odor No information available
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Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/ /equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
Specific treatment (see .? on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)**Other Information**

- May be harmful if swallowed
- May be harmful in contact with skin
- Toxic to aquatic life with long lasting effects
- Toxic to aquatic life

Unknown Acute Toxicity

4.45% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
Hydriodic acid	10034-85-2	0 - 10%	*
Isopropyl alcohol	67-63-0	20 - 30%	*
Iodine	7553-56-2	0 - 10%	*
Phosphoric acid	7664-38-2	40 - 50%	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**FIRST AID MEASURES**

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

	continue flushing for at least 15 minutes. Call a physician immediately.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. Call a physician or Poison Control Centre immediately.
Ingestion	Do not induce vomiting. Drink 1 or 2 glasses of water. Call a physician or Poison Control Centre immediately. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects	According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Water spray, Carbon dioxide (CO₂), Foam

Unsuitable Extinguishing Media

No information available.

Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Environmental Precautions

Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Soak up with inert absorbent material. Take up mechanically and collect in suitable container for disposal. Take precautionary measures against static discharges. Do not use sparking tools.

7. HANDLING AND STORAGE**Precautions for Safe Handling**

Handling	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.
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Conditions for safe storage, including any incompatibilities

Storage	Keep containers tightly closed in a dry, cool and well-ventilated place.
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Incompatible Materials	bases, organic materials, light metals, bleach
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Keep out of the reach of children

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl alcohol 67-63-0	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³	2000 ppm
Iodine 7553-56-2	TWA: 0.01 ppm STEL: 0.1 ppm	Ceiling: 0.1 ppm Ceiling: 1 mg/m ³	2 ppm
Phosphoric acid 7664-38-2	TWA: 1 mg/m ³ STEL: 3 mg/m ³	TWA: 1 mg/m ³ STEL: 3 mg/m ³	1000 mg/m ³

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face Protection	Goggles.
Skin and body protection	Wear protective gloves and protective clothing.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state	Liquid	Odor	No information available
Appearance	Dark brown	Odor Threshold	No information available
Color	No information available		
Property	Values	Remarks/ Method	
pH	2		
Melting point/freezing point	No information available		
Boiling Point/Range	No information available		
Flash Point	35 °C / 95 °F		
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit	No information available		
Lower flammability limit	No information available		
Vapor Pressure	No information available		
Vapor Density	No information available		
Specific Gravity	1.27		
Water Solubility	soluble		
Solubility in other solvents	No information available		
Partition coefficient: n-octanol/water	No information available		
Autoignition Temperature	No information available		
Decomposition temperature	No information available		
Viscosity of Product	No information available		
Dynamic viscosity	No information available		
Explosive Properties	No information available		

Oxidizing Properties No information available

Other information

Softening Point No information available
Molecular Weight No information available
VOC Content No information available
Density 10.6 lb/gal
Bulk Density No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical Stability

Stable under normal conditions.

Possibility of hazardous reactions

Gives off hydrogen by reaction with some metals (e.g. aluminum).

Conditions to Avoid

Heat, flames and sparks.

Incompatible Materials

bases, organic materials, light metals, bleach

Hazardous decomposition products

None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation No data available.
Eye contact No data available.
Skin contact No data available.
Ingestion No data available.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Isopropyl alcohol 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	72.6 mg/L (Rat) 4 h
Iodine 7553-56-2	14000 mg/Kg	-	137 ppm 4.588 mg/L
Phosphoric acid 7664-38-2	= 1530 mg/kg (Rat)	2730 mg/kg (Rabbit)	850 mg/m ³ (Rat) 1 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Mutagenic effects No information available.
Carcinogenicity .

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acids and not to the specific acids or their solutions, unless otherwise noted.

Reproductive Effects No information available.
STOT - single exposure No information available.
STOT-repeated exposure No information available.
Aspiration Hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 4.45% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

5.12% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Microtox	Waterflea
Isopropyl alcohol 67-63-0	1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h Desmodesmus subspicatus mg/L EC50	9640: 96 h Pimephales promelas mg/L LC50 flow-through 11130: 96 h Pimephales promelas mg/L LC50 static 1400000: 96 h Lepomis macrochirus µg/L LC50	EC50 = 35390 mg/L 5 min	13299: 48 h Daphnia magna mg/L EC50
Iodine 7553-56-2	-	LC50 (96 h) 0.53 mg/L	-	LC50 (48 h) 0.16 mg/L
Phosphoric acid 7664-38-2	-	3 - 3.5: 96 h Gambusia affinis mg/L LC50	-	4.6: 12 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical Name	Partition coefficient
Isopropyl alcohol 67-63-0	0.05

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method Dispose of in accordance with local regulations. Should not be released into the environment.

Contaminated Packaging Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT

UN-No 2924
Proper Shipping Name Flammable liquid, corrosive, n.o.s (Isopropanol, Phosphoric acid)
Hazard Class 3
Subsidiary Class 8
Packing Group III

15. REGULATORY INFORMATION

International Inventories

TSCA	TSCA
DSL/NDSL	DSL/NDSL
EINECS/ELINCS	Complies
ENCS	Does not Comply
CHINA	Complies
KECL	Does not Comply
PICCS	Does not Comply
AICS	Does not Comply

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phosphoric acid 7664-38-2	5000 lb	-	-	X
Chemical Name	RQ	CERCLA EHS RQs		RQ
Phosphoric acid 7664-38-2	5000	-		RQ 5000 lb final RQ RQ 2270 kg final RQ

State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. EPA Label information

EPA Pesticide registration number Not applicable

16. OTHER INFORMATION

NFPA Health 3 Flammability 2 Instability 0 Physical Hazard -

Preparation Date: 26-Nov-2007

Revision Date: 29-May-2015

Revision Note

No information available

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of SDS