

# Dyne

Preparation Date: 26-Nov-2007

Revision Date: 29-May-2015

# SAFETY DATA SHEET

Revision Number: 2

## 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
-------------------	------------

### 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



<b>Appearance</b> Dark brown	<b>Physical state</b> Liquid	<b>Odor</b> No information available
------------------------------	------------------------------	--------------------------------------

**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 CO<sub>2</sub>, 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.
<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately.
<b>Inhalation</b>	Move to fresh air. If not breathing, give artificial respiration. Call a physician or Poison Control Centre immediately.
<b>Ingestion</b>	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**

<b>Most Important Symptoms and Effects</b>	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.
--	--

**Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically.
---------------------------	------------------------

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Water spray, Carbon dioxide (CO<sub>2</sub>), 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**

<b>Handling</b>	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.
-----------------	--

**Conditions for safe storage, including any incompatibilities**

<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.
----------------	--

<b>Incompatible Materials</b>	bases, organic materials, light metals, bleach
-------------------------------	--

## 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 <sup>3</sup> STEL: 500 ppm STEL: 1225 mg/m <sup>3</sup>	2000 ppm
Iodine 7553-56-2	TWA: 0.01 ppm STEL: 0.1 ppm	Ceiling: 0.1 ppm Ceiling: 1 mg/m <sup>3</sup>	2 ppm
Phosphoric acid 7664-38-2	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>	1000 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

<b>Eye/face Protection</b>	Goggles.
<b>Skin and body protection</b>	Wear protective gloves and protective clothing.
<b>Respiratory Protection</b>	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**

<b>Physical state</b>	Liquid	<b>Odor</b>	No information available
<b>Appearance</b>	Dark brown	<b>Odor Threshold</b>	No information available
<b>Color</b>	No information available		
<b>Property</b>	<b>Values</b>	<b>Remarks/ Method</b>	
<b>pH</b>	2		
<b>Melting point/freezing point</b>	No information available		
<b>Boiling Point/Range</b>	No information available		
<b>Flash Point</b>	35 °C / 95 °F		
<b>Evaporation rate</b>	No information available		
<b>Flammability (solid, gas)</b>	No information available		
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit</b>	No information available		
<b>Lower flammability limit</b>	No information available		
<b>Vapor Pressure</b>	No information available		
<b>Vapor Density</b>	No information available		
<b>Specific Gravity</b>	1.27		
<b>Water Solubility</b>	soluble		
<b>Solubility in other solvents</b>	No information available		
<b>Partition coefficient: n-octanol/water</b>	No information available		
<b>Autoignition Temperature</b>	No information available		
<b>Decomposition temperature</b>	No information available		
<b>Viscosity of Product</b>	No information available		
<b>Dynamic viscosity</b>	No information available		
<b>Explosive Properties</b>	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 <sup>3</sup> ( 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** .

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.

<b>Reproductive Effects</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT-repeated exposure</b>	No information available.
<b>Aspiration Hazard</b>	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

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

## 15. REGULATORY INFORMATION

### International Inventories

<b>TSCA</b>	TSCA
<b>DSL/NDSL</b>	DSL/NDSL
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Does not Comply
<b>CHINA</b>	Complies
<b>KECL</b>	Does not Comply
<b>PICCS</b>	Does not Comply
<b>AICS</b>	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 MSDS 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**