

Issuing Date 27-Apr-2023

Revision Date 20-Aug-2024

Revision Number 4

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product Code(s) PSL-0.03, -0.125, and -0.25

Product Name Pyrosate®

Synonyms None

Pure substance/mixture Mixture

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Laboratory reagent  
For professional use only

Uses advised against No information available

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

Associates of Cape Cod, Intl, Inc.  
Unit 1 F/G/H Academy Business Park,  
Lees Road, Knowsley,  
Liverpool L33 7SA  
(T) 44-151-547-7444

#### For further information, please contact

E-mail address [custservice@acciusa.com](mailto:custservice@acciusa.com)

### 1.4. Emergency telephone number

Emergency telephone Chemtel  
(International) +1-360-256-7365  
(North America) +1-800-704-9215

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Reproductive toxicity	Category 1B - (H360D)

### 2.2. Label elements

Contains 1-Imidazole

**Signal word**

Danger

**Hazard statements**

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H360D - May damage the unborn child.

**Precautionary statements**

P201 - Obtain special instructions before use.

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor.

P501 - Dispose of contents/ container to an approved waste disposal plant.

**Unknown acute toxicity**

68 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

**Unknown aquatic toxicity**

Contains 0 % of components with unknown hazards to the aquatic environment.

**Additional information**

This product requires tactile warnings if supplied to the general public.

**2.3. Other hazards**

The product does not contain any substance(s) classified as PBT or vPvB. May be harmful if inhaled.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable

**3.2 Mixtures**

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Sodium chloride 7647-14-5	27-29	231-598-3	-	-	-	-	-
1-Imidazole 288-32-4	3-4	(613-319-00-0) 206-019-2	-	Acute Tox. 4 (H302) Skin Corr. 1C (H314)	-	-	-

				Repr. 1B (H360D)			
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**Full text of H- and EUH-phrases: see section 16**

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (UK REACH Article 59)

## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	Get immediate medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a doctor.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

### **4.2. Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Burning sensation.
<b>Effects of Exposure</b>	No information available.

### **4.3. Indication of any immediate medical attention and special treatment needed**

<b>Note to doctors</b>	Treat symptomatically.
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## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	None known based on information supplied.

### **5.2. Special hazards arising from the substance or mixture**

<b>Specific hazards arising from the chemical</b>	None known based on information supplied.
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### **5.3. Advice for firefighters**

<b>Special protective equipment and</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout
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precautions for fire-fighters gear. Use personal protection equipment.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation.
<b>Other information</b>	Refer to protective measures listed in Sections 7 and 8.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

### **6.2. Environmental precautions**

<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so.
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### **6.3. Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labelled containers.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.

### **6.4. Reference to other sections**

<b>Reference to other sections</b>	See section 8 for more information. See section 13 for more information.
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## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

<b>Advice on safe handling</b>	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash it before reuse.
<b>General hygiene considerations</b>	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

### **7.2. Conditions for safe storage, including any incompatibilities**

<b>Storage Conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.
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### **7.3. Specific end use(s)**

<b>Specific use(s)</b>	No information available.
<b>Risk Management Methods (RMM)</b>	The information required is contained in this Safety Data Sheet.

## **SECTION 8: Exposure controls/personal protection**

### **8.1. Control parameters**

<b>Exposure Limits</b>	This product, as supplied, does not contain any hazardous materials with occupational
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exposure limits established by the region specific regulatory bodies.

**Biological occupational exposure limits** This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

#### Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Sodium chloride 7647-14-5		295.52 mg/kg bw/day [4] [6] 295.52 mg/kg bw/day [4] [7]	2068.62 mg/m <sup>3</sup> [4] [6] 2068.62 mg/m <sup>3</sup> [4] [7]
1-Imidazole 288-32-4		1.5 mg/kg bw/day [4] [6]	10.6 mg/m <sup>3</sup> [4] [6]

#### Notes

[4] Systemic health effects.  
[6] Long term.  
[7] Short term.

#### Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Sodium chloride 7647-14-5	126.65 mg/kg bw/day [4] [6] 126.65 mg/kg bw/day [4] [7]	126.65 mg/kg bw/day [4] [6] 126.65 mg/kg bw/day [4] [7]	443.28 mg/m <sup>3</sup> [4] [6] 443.28 mg/m <sup>3</sup> [4] [7]

#### Notes

[4] Systemic health effects.  
[6] Long term.  
[7] Short term.

#### Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Sodium chloride 7647-14-5	5 mg/L				
1-Imidazole 288-32-4	0.13 mg/L	1.3 mg/L	0.013 mg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Sodium chloride 7647-14-5			500 mg/L	4.86 mg/kg soil dw	
1-Imidazole 288-32-4	0.336 mg/kg sediment dw	0.0336 mg/kg sediment dw	10 mg/L	0.0425 mg/kg soil dw	

## 8.2. Exposure controls

**Engineering controls** Showers  
Eyewash stations

Ventilation systems.

### Personal protective equipment

<b>Eye/face protection</b>	Tight sealing safety goggles. Eye protection must conform to standard EN 166.
<b>Hand protection</b>	Wear suitable gloves. Impervious gloves. Gloves must conform to standard EN 374.
<b>Skin and body protection</b>	Wear suitable protective clothing. Long sleeved clothing.
<b>Respiratory protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
<b>General hygiene considerations</b>	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

## **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	White to off-white lyophilized pellet
<b>Physical state</b>	Solid
<b>Colour</b>	White to off-white
<b>Odour</b>	No information available
<b>Odour threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Melting point / freezing point</b>		No data available
<b>Initial boiling point and boiling range</b>		No data available
<b>Flammability</b>		No data available
<b>Flammability Limit in Air</b>		
<b>Upper flammability or explosive limits</b>		No data available
<b>Lower flammability or explosive limits</b>		No data available
<b>Flash point</b>		No data available
<b>Autoignition temperature</b>	480 °C	No data available
<b>Decomposition temperature</b>		No data available
<b>pH</b>		No data available
<b>pH (as aqueous solution)</b>		No data available
<b>Kinematic viscosity</b>		No data available
<b>Dynamic viscosity</b>		No data available
<b>Water solubility</b>		No data available
<b>Solubility(ies)</b>		No data available
<b>Partition coefficient</b>		No data available
<b>Vapour pressure</b>		No data available
<b>Relative density</b>		No data available
<b>Bulk density</b>		No data available
<b>Liquid Density</b>		No data available
<b>Vapour density</b>		No data available
<b>Particle characteristics</b>		
<b>Particle Size</b>		No data available
<b>Particle Size Distribution</b>		No data available
<b>Explosive properties</b>	No information available.	
<b>Oxidising properties</b>	No information available.	

**9.2. Other information**

VOC No information available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Reactivity No information available.

**10.2. Chemical stability**

Stability Stable under normal conditions.

**Explosion data**

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

**10.3. Possibility of hazardous reactions**

Possibility of hazardous reactions None under normal processing.

**10.4. Conditions to avoid**

Conditions to avoid None known based on information supplied.

**10.5. Incompatible materials**

Incompatible materials Strong acids, Strong bases, Strong oxidising agents.

**10.6. Hazardous decomposition products**

Hazardous decomposition products None known based on information supplied.

**SECTION 11: Toxicological information****11.1. Toxicological information****Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May be harmful if inhaled.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Harmful if swallowed. (based on components).

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Redness. Burning. May cause blindness. May cause redness and tearing of the eyes.

**Acute toxicity**

**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 1,811.30 mg/kg

ATEmix (inhalation-dust/mist) >5.0 mg/l

**Unknown acute toxicity**

68 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium chloride	= 3 g/kg ( Rat )	> 10000 mg/kg ( Rabbit )	> 42 mg/L ( Rat ) 1 h
1-Imidazole	= 220 mg/kg ( Rat )	-	-

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

**Skin corrosion/irritation** Classification based on data available for ingredients. Causes skin irritation.

**Serious eye damage/eye irritation** Classification based on data available for ingredients. Causes burns. Causes serious eye damage.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

**Reproductive toxicity** Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	United Kingdom
1-Imidazole	Repr. 1B

**STOT - single exposure** Based on available data, the classification criteria are not met.

**STOT - repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.



**Other adverse effects** No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

**Unknown aquatic toxicity** Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium chloride	-	LC50: 5560 - 6080mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: =12946mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: 6020 - 7070mg/L (96h, <i>Pimephales promelas</i> ) LC50: =7050mg/L (96h, <i>Pimephales promelas</i> ) LC50: 6420 - 6700mg/L (96h, <i>Pimephales promelas</i> ) LC50: 4747 - 7824mg/L (96h, <i>Oncorhynchus mykiss</i> )	-	EC50: =1000mg/L (48h, <i>Daphnia magna</i> ) EC50: 340.7 - 469.2mg/L (48h, <i>Daphnia magna</i> )
1-Imidazole	EC50: =130mg/L (72h, <i>Desmodesmus subspicatus</i> ) EC50: =82mg/L (96h, <i>Desmodesmus subspicatus</i> )	-	-	EC50: =341.5mg/L (48h, <i>Daphnia magna</i> )

### 12.2. Persistence and degradability

**Persistence and degradability** No information available.

### 12.3. Bioaccumulative potential

**Bioaccumulation**

#### Component Information

Chemical name	Partition coefficient
1-Imidazole	-0.02

### 12.4. Mobility in soil

**Mobility in soil** No information available.

### 12.5. Results of PBT and vPvB assessment

**PBT and vPvB assessment** The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
Sodium chloride	The substance is not PBT / vPvB
1-Imidazole	The substance is not PBT / vPvB

**12.6. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

<b>Waste from residues/unused products</b>	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	Do not reuse empty containers.

**SECTION 14: Transport information****IMDG**

	Not regulated
<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	None
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	No information available

**RID**

	Not regulated
<b>14.1 UN number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	None

**ADR**

	Not regulated
<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	None

**IATA**

	Not regulated
<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	None
<b>Note:</b>	None

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**National regulations****Authorisations and/or restrictions on use:**

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
1-Imidazole - 288-32-4	Use restricted. See item 30. Restricted Reproductive Toxin 1B	-

**Persistent Organic Pollutants**

Not applicable

**Export Notification requirements**

Not applicable

**Named dangerous substances per COMAH Regulations 2015 (as amended)**

Not applicable

**The Ozone-Depleting Substances Regulations 2015**

Not applicable

**The Biocidal Products Regulations 2001 (as amended)**

Not applicable

**The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)**

Not applicable

**Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)**

Not applicable

**International Inventories**

Contact supplier for inventory compliance status

**15.2. Chemical safety assessment****Chemical Safety Report**

Chemical safety assessments for substances in this mixture were not carried out

**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H360D - May damage the unborn child

**Legend**

SVHC: Substances of Very High Concern for Authorisation:

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

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Skin designation

+ Sensitisers

SCBA

Self-contained breathing apparatus

**Classification procedure**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Method Used

Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

#### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
 European Chemicals Agency (ECHA) (ECHA\_API)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGl(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 National Institute of Technology and Evaluation (NITE)  
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
 Organisation for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

**Issuing Date** 27-Apr-2023

**Revision Date** 20-Aug-2024

**Revision Note** Address update

**This material safety data sheet complies with the requirements of UK REACH**

**Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

#### Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless

specified in the text

**End of Safety Data Sheet**