



Material Safety Data Sheet (MSDS) Pure EC

IDENTIFICATION OF THE SUPPLIER:

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PRODUCT IDENTIFICATION:

Common Name: Bupirimate
Trade Name: Pure EC
Chemical Name: 5 Butyl-2-ethylamino-6-methylpyrimidin-4yl-dimethylsulfamate
Chemical Formula: C₁₃H₂₄N₄O₃S
Molecular Weight: 316.4

PRODUCT COMPOSITION:

<i>Active Ingredient:</i>	<i>% w/v</i>	<i>CAS #</i>
Bupirimate	25%	[41483-43-6]

Inert materials: up to 1 liter

FIRE-FIGHTING MEASURES: -

Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available.

Special hazards arising from the substance or mixture

No specific hazard known.





Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

FIRST-AID MEASURES:

Description of first aid measures

General advice In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

First aider: Pay attention to self-protection!.

Inhalation Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

Self-protection of the first aider Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms None known

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

ACCIDENTAL RELEASE:

Personal precautions, protective equipment and emergency procedures

Personal precautions

Remove all sources of ignition. Evacuate personnel to safe areas. Use only with adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.





Methods and material for containment and cleaning up

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

PERSONAL PROTECTION/SAFETY:

Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection tight sealing safety goggles.

Body Protection Wear fire/flame resistant/retardant clothing, Gloves made of plastic or rubber, Antistatic footwear, Suitable protective clothing, Apron.

Respiratory protection Use only with adequate ventilation.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

Environmental exposure controls do not allow into any sewer, on the ground or into any body of water.

HANDLING AND STORAGE:

Precautions for safe handling

Advice on safe handling

Use only with adequate ventilation. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static \

electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place.





PHYSICAL AND CHEMICAL PROPERTIES:

<u>Property</u>	<u>Values</u>
Appearance	
Physical state :	Liquid
Color :	light yellow
Odor :	Solvent
Odor threshold :	No data available
pH :	8.7 - 9.2
Melting point/freezing point °C :	No data available
Boiling point/boiling range °C :	No data available
Flash point °C :	40
Evaporation rate :	Not Applicable
Flammability (solid, gas) :	Not Applicable
Upper/lower flammability or explosive limits:	No data available
Vapor pressure kPa :	No data available
Vapor density :	No data available
Relative density :	0.88 - 0.98
Solubility(ies) mg/l :	No data available
Partition Coefficient (n-octanol/water) Log Pow	
Autoignition temperature °C :	No data available
Decomposition temperature °C :	No data available
Kinematic viscosity mm²/s 40 °C :	Not available
Explosive properties :	Not an explosive
Oxidizing properties :	No data available





ECOLOGICAL INFORMATION:

12.1. Toxicity

Aquatic toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Acute toxicity Fish 96-hour LC50 mg/l	: 6.2	Oncorhynchus mykiss		
Crustacea 48-hour EC50 mg/l	: 11.9	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: 1.55	P. subcapitata	OECD 201	
Other plants EC50 mg/l	:			Not available

Terrestrial Toxicity

Birds Oral LD50 mg/kg

Chemical Name

Bupirimate : >5000 Coturnix japonica

Bees Oral LD50 µg/bee

Chemical Name

Bupirimate : > 200 Oral

12.2. Persistence and degradability

Abiotic Degradation

Water DT50 days

Chemical Name

Bupirimate : 165 SETAC

Soil DT50 days

Chemical Name

Bupirimate : 22-69

Biodegradation

Chemical Name

Bupirimate : Not readily biodegradable OECD 301 D

12.3. Bioaccumulative potential

Partition Coefficient

(n-octanol/water) Log Pow

Chemical Name

Bupirimate : 3.68 pH 7

Bioconcentration factor (BCF)

Chemical Name

Bupirimate : Not available

12.4. Mobility in soil

Adsorption/Desorption

Chemical Name

Bupirimate : 882 - 2822 Koc

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

12.6. Other adverse effects

No information available.





TOXICOLOGICAL INFORMATION: -

11.1. Information on toxicological effects

Acute toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	: > 2000	Rat	JF 4260	
Dermal LD50 mg/kg	: > 2000	Rat	JF 4260	
Inhalation LC50 mg/l/4h	: > 5.3	Rat	OECD 403	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Not irritating to eyes	Rabbit	OECD 405	
Respiratory/skin sensitization	: Not a skin sensitizer	Guinea pig	OECD 406	

Chronic toxicity

Germ cell mutagenicity

Chemical Name
Bupirimate : Not classified

Carcinogenicity

Chemical Name
Bupirimate : Not Carcinogenic

Reproductive toxicity

Chemical Name
Bupirimate : Not classified

STOT - single exposure

Chemical Name
Bupirimate : Not available

STOT - repeated exposure

Chemical Name
Bupirimate : Not available

Aspiration hazard

Chemical Name
Bupirimate : Not available

STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

No information available

Hazardous decomposition products

None under normal use conditions.





DISPOSAL CONSIDERATIONS:

Waste treatment methods

Waste from residues/unused products

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Improper disposal or reuse of this container may be dangerous and illegal.

Other Information Waste codes should be assigned by the user based on the application for which the product was used.

TRANSPORT INFORMATION:

IMDG/IMO

UN/ID No 1993

Proper shipping name FLAMMABLE LIQUID, N.O.S. (31-34% n-BUTANOL)

Hazard Class 3

Packing Group III

Marine pollutant Yes

Special precautions for user

RID/ADR

UN/ID No 1993

Proper shipping name FLAMMABLE LIQUID, N.O.S. (31-34% n-BUTANOL)

Hazard Class 3

Packing Group III

Environmental hazard Yes

Special precautions for user

ICAO/IATA

UN/ID No 1993

Proper shipping name FLAMMABLE LIQUID, N.O.S. (31-34% n-BUTANOL)

Hazard Class 3

Packing Group III

Environmental hazard Yes

Special precautions for user

Transport in bulk according to

Annex II of MARPOL 73/78 and the IBC Code

Not Applicable

