



Safety Data Sheet

Preparation Date 20-May-2015

Revision date 03-Jan-2019

Revision Number: 4

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product Description: Stam M-4

Other means of identification

Product code 12U-174A

UN/ID no. UN1993

Registration number(s) 71085-36

Recommended use of the chemical and restrictions on use

Recommended use Herbicide.

Uses advised against Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet

Supplier Address

UPL NA Inc.
630 Freedom Business Center
Suite 402
King of Prussia, PA 19406***

Emergency telephone number

Company Phone Number (888)835-1313

Emergency telephone number (504) 439-3140

(727) 374-5705

2. Hazards Identification

Classification

OSHA Regulatory Status

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

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Gases)	Category 2
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
FLAMMABLE LIQUIDS	Category 3

Label elements

EMERGENCY OVERVIEW

DANGER

Hazard Statements

HARMFUL IF SWALLOWED

Harmful in contact with skin

Fatal if inhaled

Causes serious eye irritation

Suspected of causing cancer

May cause respiratory irritation

Flammable liquid and vapor

**Appearance** brown Black**Physical state** Liquid**Odor** sweet**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood
 Wear cold insulating gloves/face shield/eye protection
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not breathe dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 In case of inadequate ventilation wear respiratory protection
 Do not spray on an open flame or other ignition source
 Keep only in original container
 Ground/bond container and receiving equipment
 Take precautionary measures against static discharge
 Ground/bond container and receiving equipment

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 Call a POISON CENTER or doctor if you feel unwell
 Wash contaminated clothing before reuse
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 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
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 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**

- Very toxic to aquatic life with long lasting effects
- Very toxic to aquatic life

3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Propanil	709-98-8	44.8
Isophorone	78-59-1	30-31
Methyl isobutyl ketone	108-10-1	10-12

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

Eye contact	Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin contact	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.
Inhalation	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.
Ingestion	Call a physician or poison control center immediately. Have person sip a glass of water if able to swallow. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
Protection of First-aiders	Use personal protective equipment.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects no data available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide (CO₂).
Use: Dry chemical. Water spray. alcohol-resistant foam.

Unsuitable extinguishing media no data available.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapours.

Hazardous combustion products Hydrogen chloride. Chlorine gas.

Explosion data

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

Personal Precautions Avoid contact with skin and eyes. Remove all sources of ignition. Wear protective gloves/protective clothing and eye/face protection.

Environmental Precautions

Environmental precautions Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Methods and material for containment and cleaning up

Methods for Clean-Up Pick up and transfer to properly labelled containers. Ground and bond containers when transferring material. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. Handling and Storage

Precautions for safe handling

Handling Wear personal protective equipment. Avoid contact with skin and eyes. Remove all sources of ignition. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Protect from light. Keep in properly labelled containers.

incompatible materials Strong oxidizing agents.

8. Exposure Controls/Personal Protection

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL
Isophorone	Ceiling: 5 ppm	TWA: 25 ppm TWA: 140 mg/m ³ (vacated) TWA: 4 ppm (vacated) TWA: 23 mg/m ³
Methyl isobutyl ketone	STEL: 75 ppm TWA: 20 ppm	TWA: 100 ppm TWA: 410 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 205 mg/m ³ (vacated) STEL: 75 ppm (vacated) STEL: 300 mg/m ³

Engineering controls Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Personal protective equipment

- Eye/Face Protection** Use eye protection to avoid eye contact. Where there is potential for eye contact have eye flushing equipment available. If splashes are likely to occur, wear:. Goggles.
- Skin protection** Wear protective gloves/clothing. Chemical resistant footwear plus socks. Long sleeved clothing.
- Respiratory protection** Select respirator with an organic vapor cartridge with prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with organic vapor cartridge or canister with any N,P,R, or HE filter.

General hygiene considerations

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state Liquid
Appearance brown Black
color No information available
Odor sweet

Property	VALUES	Remarks/ • Method
pH	No information available	
Melting point/freezing point	no data available	
Boiling Point/Range	No information available	
Flash Point	43 °C / 109 °F	Seta Closed Cup
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	5.3 mmHg @ 20 C/68 F
Vapor Density	9.3
Specific gravity	1.075
Water solubility	No information available
Solubility in Other Solvents	No information available
Partition coefficient: n-octanol/water	No information available
Autoignition temperature	357 °C / 675 °F
Decomposition temperature	No information available
Viscosity, kinematic	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
Liquid Density	No information available

10. Stability and Reactivity**Reactivity**

no data available

Chemical stability

Stable under normal conditions. Hazardous polymerisation does not occur.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization	Hazardous polymerisation does not occur.
---------------------------------	--

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapours. Hydrogen chloride. Organic acids. chloroanilines.

11. Toxicological Information**Information on Likely Routes of Exposure**

Product information	Stam: (Information listed below are for a compositionally similar material): Oral LD50 (rat): >500 mg/kg Dermal LD50 (rat): > 2,000 mg/kg Inhalation LC50 (rat): > 2.8 mg/L for 4 hr Eye irritation (rabbit): substantial irritation Skin irritation (rabbit): Moderate irritation
Inhalation	May cause irritation of respiratory tract.
Eye contact	Causes substantial but temporary eye injury.

Skin contact	Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	HARMFUL IF SWALLOWED.

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 data available.
Carcinogenicity The information below indicates whether any agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Isophorone 78-59-1	A3			-
Methyl isobutyl ketone 108-10-1	A3	Group 2B		X

Reproductive effects Not Available.
STOT - Single Exposure no data available.
STOT - Repeated Exposure no data available.
Chronic toxicity Avoid repeated exposure.
Target organ effects liver, kidney, Respiratory System, EYES, skin, Central Nervous System (CNS).
Aspiration hazard No information available.

Numerical Measures of Toxicity - Product information

LD50 Oral > 500 mg/kg (rat)
LD50 Dermal > 2000 mg/kg (rat)
LC50 Inhalation Inhalation LC50 > 2.8 mg/l (4-hr)

12. Ecological Information**ecotoxicity**

for active ingredient - Propanil
Bluegill sunfish 96 hr LC50 = 5.4 mg/L
Rainbow trout 96 hr LC50 = 2.3 mg/L
Quail Oral LD50 = 196 mg/kg
Quail 8 day dietary LC50 = 2861 ppm
Mallard duck 8 day dietary LC50 = 5627 ppm
Daphnia magna 48 hr EC50 = 0.14 mg/L
Estuarine and marine organism 48-96 hr EC50 = 0.4 - 5.8 mg/L

Persistence/Degradability

no data available.

Bioaccumulation/ Accumulation

Bioaccumulative potential.

Chemical name	Log Pow
Propanil 709-98-8	3.07
Isophorone 78-59-1	1.66
Methyl isobutyl ketone 108-10-1	1.19

Other Adverse Effects

no data available

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packaging Refer to product label.

14. Transport Information

DOT When shipped in bulk or internationally the marine pollutant marking must also be added to the package.

UN/ID no.	UN1993
Proper shipping name	Flammable liquid, n.o.s (Methyl isobutyl ketone)
Hazard class	3
Packing group	PG III

ICAO

UN/ID no.	UN 1993
Proper shipping name	Flammable liquid, n.o.s (Methyl isobutyl ketone)
Hazard class	3
Packing group	PG III
Description	IMDG - Marine Pollutant (Propanil)

IATA

UN/ID no.	UN1993
Proper shipping name	Flammable liquid, n.o.s (Methyl isobutyl ketone)
Hazard class	3
Packing group	PG III
Description	IMDG - Marine Pollutant (Propanil)

IMDG

UN/ID no.	UN1993
Proper shipping name	Flammable liquid, n.o.s (Methyl isobutyl ketone)
Hazard class	3
Packing group	PG III
EmS No.	F-E, S-E
Environmental hazards	Environmental hazards (Propanil)

15. Regulatory Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

signal word WARNING

Ventilation Control PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO

PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.

Causes substantial but temporary eye injury. Keep out of Reach of Children. Harmful if swallowed. Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals. Toxic to fish and aquatic invertebrates.

International Inventories

USINV	Not present
DSL/NDL	Not present
EINECS/ELINCS	Not Present
ENCS	Not Present
China	Not Present
KECL	Not Present
PICCS	Not Present
AICS	Not Present
TSCA	Not Present

- **TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECS** - 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

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Isophorone 78-59-1		X	X	

CERCLA

Not applicable

Chemical name	RQ	CERCLA EHS RQs	RQ
Isophorone 78-59-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Methyl isobutyl ketone 108-10-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

CERCLA

Component	RQ
Isophorone 78-59-1 (30-31)	5000 lb
Methyl isobutyl ketone 108-10-1 (10-12)	5000 lb

SARA Product RQ 0

RCRA

Component	RCRA - D Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Methyl isobutyl ketone 108-10-1 (10-12)			U161

Pesticide Information

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Propanil				Present

709-98-8 (44.8)				
Methyl isobutyl ketone 108-10-1 (10-12)			X	

State Regulations

Component	CAS No	CATEGORY
Methyl isobutyl ketone 108-10-1 (10-12)	108-10-1	Carcinogen
Component	California Prop. 65	Non-additive, corrosive chemical type
Methyl isobutyl ketone 108-10-1 (10-12)	Carcinogen Developmental	

State Right-to-Know

Not applicable

International regulations**U.S. EPA Label information**

EPA Pesticide registration number 71085-36

16. Other Information**NFPA**

HEALTH 3

flammability 2

Instability 0

Physical hazard -

Preparation Date 20-May-2015

Revision date 03-Jan-2019

Revision Summary

Address Update Section 16***

Disclaimer

The information contained is based on our knowledge of the product at the date of publishing.

It applies to the PRODUCT AS SUCH. In case of formulation or mixture, make sure that a new danger will not appear.

Users are advised of possible additional hazards when the product is used in applications for which it was not intended.

This sheet shall only be used and duplicated for prevention and Safety purposes.

For rates and use recommendations, refer to the information displayed on the packaging.

It is the responsibility of the handlers of the product to pass on this safety data sheet to any subsequent persons who will come into contact with the product.

End of SDS