

148 Metal Detectable Food/Meat Marker

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Detectamet are proud to offer a Metal Detectable and X-Ray Visible Food/Meat Marker, designed for use within food factories, to mark meat/ food produce. These retractable food and meat markers come in blue housing with three ink colours and use food safe ink which is quick drying to prevent bleeding on the product. The marker is housed within a metal & X-ray detectable polymer housing, so potential part breakages of the housing don't offer a contamination risk to your food production line.

Do not use for purposes other than those specified.

Industrial	Professional	Consumer
Yes	Yes	-

2 Hazards Identification

2.1 Classification of the substance or mixture The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulations 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulations 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 2	H225	Highly flammable liquid and vapour
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2.2 Label elements Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms	
Signal word	Danger

- **Hazard statements**

H225 Highly flammable liquid and vapour

- **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

P370+P378 In case of fire: use extinguishing media appropriate to extinguish.

P233 Keep container tightly closed

2.3 Other hazards

On the basis of available data, the product does not contain and PBT or vPvP in percentage \geq than 0.1%

3 Composition/Information on Ingredients

Mixtures contains			
Identification	X = Conc %	Classification 1272/2008 (CLP)	
Ethanol CAS EC INDEX Reg no	64-17-5 200-578-6 603-002-00-5 01-2119457610-43-xxx	$22 \leq X < 25$	Flam. Liq. 2 H225, eye irrit. 2 H319
PROPAN-2-OL CAS EC INDEX	67-63-0 200-661-7 603-117-00-0	$1 \leq x < 3$	Flam. Liq. 2 H225, eye irrit. 2 H319, STOT SE 3 H336

Reg. no. 01-2119457558-25-xxxx

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4 First Aid Measures

4.1 Description of first aid measures

EYES Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/

attention. Wash contaminated clothing before using it again.

INHALATION Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

5 Firefighting Measures

5.1. Extinguishing media

Suitable extinguishing equipment Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

Unsuitable extinguishing equipment Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

Hazards caused by exposure in the event of fire Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

General information Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.

Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

Special protective equipment for firefighters Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard. Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7 Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8 Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

GBR United Kingdom
TLV-ACGIH ACGIH 2020

EH40/2005 Workplace exposure limits (Third edition, published 2018)

Ethanol						
Threshold limit						
Type	Country	TWA/8h mg/m ³	Ppm	STEL/15min mg/m ³	Ppm	Remarks/Observations
TLV	BGR	1000				
TLV	CZE	1000		3000		
AGW	DEU	960	500	1920	1000	
MAK	DEU	960	500	1920	1000	
VLA	ESP			1910	1000	
VLEP	FRA	1900	1000	9500	5000	
TGG	NLD	260		1900		Skin
NDS/NDSch	POL	1900				
NGV/KGV	SWE	1000	500	1900	1000	
WEL	GBR	1920	1000			
TLV/ACGIH		1884	1000			

Predicted no-effect concentration - PNEC	
Normal value fresh water	0,96 mg/l
Normal value in marine water	0,79 mg/l
Normal value for freshwater sediment	3,6 mg/kg
Normal value for marine water sediment	2,9 mg/kg
Normal value for water, intermittent release	2,75 mg/l
Normal value of STP microorganisms	580 mg/l
Normal value for the food chain (secondary poisoning)	380 mg/kg
Normal value for the terrestrial compartment	0,63 mg/kg

Health - derived no-effect level -DNEL/DMEL						
Effects on consumers						
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	ppm	Remarks/observations
Oral			NPI	87 mg/kg bw/d		
Inhalation	NPI	NPI	NPI	114 mg/m ³		
Skin	NPI	NPI	NPI	206 mg/kg bw/d		

Health - derived no-effect level -DNEL/DMEL						
Effects on workers						
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	ppm	Remarks/observations
Oral						
Inhalation	NPI	NPI	NPI	950 mg/m ³		
Skin	NPI	NPI	NPI	343 mg/kg bw/d		

Legend

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

PROPAN-2-OL						
Threshold limit						
Type	Country	TWA/8h mg/m ³	ppm	STEL/15min mg/m ³	ppm	Remarks/observations
TLV	BGR	980		1225		
TLV	CZE	500		1000		Skin
AGW	DEU	500	200	1000	400	
MAK	DEU	500	200	1000	400	
VLA	ESP	500	200	1000	400	
VLEP	FRA			980	400	
TGG	NLD	650				
NDS/NDSch	POL	900		1200		
NGV/KGV	SWE	350	150	600	250	
WEL	GBR	999	400	1250	500	
TLV/ACGIH		492	200	983	400	

Predicted no-effect concentration - PNEC	
Normal value in fresh water	140,9 mg/l
Normal value in marine water	140,9 mg/l
Normal value for fresh water sediment	552 mg/kg
Normal value for marine water sediment	552 mg/kg
Normal value for water, intermittent release	140,9 mg/l
Normal value of STP microorganisms	2251 mg/l
Normal value for the food chain (secondary poisoning)	160 mg/kg
Normal value for the terrestrial compartment	28 mg/kg

Health - derived no-effect level - DNEL/DMEL						
Effects on consumers						
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	ppm	Remarks/observations
Oral			VND	26 mg/kg bw/d		
Inhalation			VND	89 mg/m ³		
Skin			VND	319 mg/kg bw/d		

Health - derived no-effect level -DNEL/DMEL						
Effects on workers						
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	ppm	Remarks/observations
Oral						
Inhalation			VND	500 mg/m ³		
Skin			VND	888 mg/kg bw/d		

Legend

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment,
Make sure that the workplace is well aired through effective local aspiration.

Hand protection Protect hands with category III work gloves (see standard EN 374). The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable.

The gloves' wear time depends on the duration and type of use.

Skin protection Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing. Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

Eye protection Wear airtight protective goggles (see standard EN 166).

Respiratory protection If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required. Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered.

The protection provided by masks is in any case limited. If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

Environmental exposure controls

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	Liquid	
Colour	Blue	
Odour	Alcoholic	
Odour threshold	Not determined	
pH	Not determined	
Melting point / freezing point	Not determined	
Initial boiling point	> 70 °C	
Boiling range	Not determined	
Flash point	< 23 °C	
Evaporation Rate	Not determined	
Flammability of solids and gases	Not available	
Lower inflammability limit	Not determined	
Upper inflammability limit	Not determined	
Lower explosive limit	Not determined	
Upper explosive limit	Not determined	
Vapour pressure	Not determined	
Vapour density	Not determined	
Relative density	1,000 +/- 0,050 Kg/L	
Solubility	Water-miscible	
Partition coefficient: n-octanol/water	Not determined	
Auto-ignition temperature	Not determined	
Decomposition temperature	Not determined	
Viscosity	Not determined	
Explosive properties	Not available	
Oxidising properties	Not available	

9.2. Other information

VOC (Directive 2010/75/EC) : 25,00 %

VOC (volatile carbon) : 3.22 %

10 Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

11 Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of

the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in

section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information Information not available

Information on likely routes of exposure Information not available

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

Information not available.

Interactive effects Information not available.

Acute toxicity

ATE (Inhalation) of the mixture: Not classified (no significant component)

ATE (Oral) of the mixture: Not classified (no significant component)

ATE (Dermal) of the mixture: Not classified (no significant component)

Ethanol

LD50 (Oral) 10470 mg/kg Rat - OECD Guideline 401

LD50 (Dermal) 17100 mg/kg Rabbit - Standard acute method

LC50 (Inhalation) 124,7 mg/l/4h Rat (Sprague-Dawley) - OECD Guideline 403

Propan-2-OL

LD50 (Oral) 5000 mg/kg Rat

LD50 (Dermal) 12800 mg/kg Rabbit

LC50 (Inhalation) > 40,86 mg/l/4h Rat

Skin corrosion/irritation Does not meet the classification criteria for this hazard class
Serious eye damage/irritation Does not meet the classification criteria for this hazard class
Respiratory or skin sensitisation Does not meet the classification criteria for this hazard class
Germ cell mutagenicity Does not meet the classification criteria for this hazard class
Carcinogenicity Does not meet the classification criteria for this hazard class
Reproductive toxicity Does not meet the classification criteria for this hazard class
STOT - single exposure Does not meet the classification criteria for this hazard class
STOT - repeated exposure Does not meet the classification criteria for this hazard class
Aspiration hazard Does not meet the classification criteria for this hazard class

12 Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

Ethanol

LC50 - for Fish 15400 mg/l/96h *Lepomis macrochirus* - EPA-660/3-75-009, 1975

EC50 - for Crustacea 5012 mg/l/48h *Ceriodaphnia dubia* - ASTM E729-80

EC50 - for Algae / Aquatic Plants 275 mg/l/72h *Chlorella vulgaris* - OECD Guideline 201

Chronic NOEC for Fish 250 mg/l *Danio rerio* - OECD Guideline 212 - Total exposure duration: 120h

Chronic NOEC for Crustacea 9,6 mg/l *Ceriodaphnia dubia* (Reproduction) - Total exposure duration: 10 d

Propan-2-OL

LC50 - for Fish 9640 mg/l/96h *Pimephales promelas* - OECD Guideline 203

EC50 - for Crustacea 13299 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants > 1000 mg/l/72h *Desmodesmus subspicatus*

12.2. Persistence and degradability

Ethanol

Solubility in water 789000 mg/l

Rapidly degradable

Propan-2-OL

Rapidly degradable

12.3. Bioaccumulative potential

Ethanol

Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

 Information not available

12.5. Results of PBT and vPvB assessment On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

12.6. Other adverse effects Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste

containing this product should be evaluated according to applicable regulations. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations. Waste transportation may be subject to ADR restrictions.

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 1210


14.2. UN proper shipping name

ADR / RID: PRINTING INK or PRINTING INK RELATED MATERIAL


IMDG: PRINTING INK or PRINTING INK RELATED MATERIAL

IATA: PRINTING INK or PRINTING INK RELATED MATERIAL

14.3. Transport hazard class(es)

ADR / RID: Class: 3  Label: 3

IMDG: Class: 3 Label:  3

IATA: Class: 3 Label: 3 

14.4. Packing group

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID: NO

IMDG: NO

IATA: NO

ADR / RID: HIN - Kemler: 33 Limited Quantities: 1 L Tunnel restriction code: (D/E)

Special Provision: -

IMDG: EMS: F-E, S-D Limited Quantities: 1 L

IATA: Cargo: Maximum quantity: 60 L Packaging instructions: 364

Pass.: Maximum quantity: 5 L Packaging instructions: 353

Special Instructions: A3, A72, A192

14.6. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH) None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012 None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012 None

Substances subject to the Rotterdam Convention None

Substances subject to the Stockholm Convention None

Healthcare controls Information not available

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2 Flammable liquid, category 2
Eye Irrit. 2 Eye irritation, category 2
STOT SE 3 Specific target organ toxicity - single exposure, category 3
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

LEGEND:

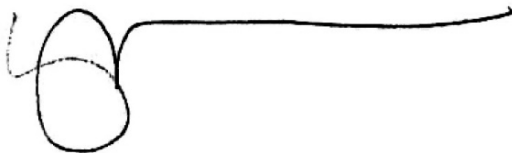
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

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2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
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4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
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9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
16. Regulation (EU) 2019/521 (XII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
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- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

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