

## **HNS FINDER**

# ENTRIES WITH LINKS TO THE FOOD INDUSTRY

### **INTRODUCTION**

The HNS Convention sets out in Article 16 a requirement for the HNS Fund to have four accounts covering GENERAL, OIL, LNG and LPG products. The GENERAL account is further divided into two sectors relating to Bulk Solids and Other HNS cargoes. All of these categories are reflected in the HNS Finder which aims to identify Hazardous and Noxious Substances (HNS) which are relevant to the Convention. Specifically, under Article 1.5, the HNS Convention defines HNS to mean substances, materials and articles carried on board a ship as cargo, as referred to in any of seven groups which are briefly summarised below.

- (i) oils carried in bulk
- (ii) noxious liquid substances (NLS) carried in bulk (including any substances/mixtures provisionally categorized)
- (iii) dangerous liquid substances carried in bulk (including any substances/mixtures provisionally categorized)
- (iv) dangerous/hazardous substances or materials carried in packaged form
- (v) liquefied gases carried in bulk (including any substances provisionally categorized)
- (vi) liquid substances carried in bulk with a flashpoint not exceeding 60°C
- (vii) solid bulk materials with chemical hazards as defined by specific IMO conditions

Note that in accordance with the HNS Convention, all packaged goods (Group (iv) above) are classified as non-contributing cargoes and as such, they are exempt from annual HNS reporting requirements. Otherwise, all other groups must be reported annually based on certain set criteria for cargo receipts. In considering **reportable** HNS Finder entries which may have an association with the Food Industry in terms of their usage or application, this effectively means looking into Groups (ii) and (vii) only. Substances in other groups are highly unlikely to have a Food Industry connection due to their properties/hazard status. Two exceptions however may be found in Group (v), Carbon dioxide (high purity) and Nitrogen which are both used in the food and drinks industry.

Entries where a food link (human consumption) is known for a product are shown in Annex 1 (for Group (ii), HNS bulk liquids) and Annex 2 (for Group (vii), HNS bulk solids).

#### SOME POINTS FOR CONSIDERATION

- 1. Most chemicals have many applications associated with them and food industry usage may be a relatively minor offtake. Some substances will serve more as a permitted food additive rather than as a foodstuff as such.
- 2. Many of the substances listed are also shipped as packaged goods and packaged material (smaller quantities) may well be more likely to be destined for the food industry.
- 3. In the Annex 1 HNS list, both formal Product Names (capitals) and agreed synonyms (lower case) are shown (as set out in the IBC Code). The HNS entries are presented in two blocks; sequentially for names starting with numbers and then alphabetically for all others.
- 4. In Annex 2, formal Bulk Cargo Shipping Names are shown in capitals and agreed Secondary Names (synonyms) are presented in lower case (as set out in the IMSBC Code).
- 5. The lists presented serve as a guide to substances which may be used in the food industry but they are not necessarily exhaustive.
- 6. Note that whilst in principle it is possible that an MEPC.2/Circular Annex 2 trade named product might have amongst its uses a food-related application, this is highly unlikely for any of the current products shown (based on components listed in the 'contains' column of the Annex as recorded for each product)

#### **ANNEX I**

## Group (ii) - HNS bulk liquids (Part 1)

1-Methylbutyl acetate 2-Methyl-4-butanol 2-Methyl-4-butyl alcohol 1-Pentanol acetate 1,2,3-Propane triol triacetate 2-Methylbutyraldehyde

1,2,3-Propanetriol 3-Methylbutanal 2-Furaldehyde 3-Methylbutyraldehyde 2-Furfuraldehyde 3-Methylbutan-1-ol 3-Methyl-1-butanol 2-Heptanone 2-Hydroxypropanoic acid 3-Methyl-1-butyl alcohol 2-Hydroxypropionic acid 5-Methylhexan-2-one

2-Methylbutanal

Glycerin triacetate

# Group (ii) - HNS bulk liquids (Part 2)

ACETIC ACID Glycerol triacetate PALM OIL ALCOHOLIC BEVERAGES, N.O.S. **GLYCERYL TRIACETATE PALM OLEIN PALM STEARIN** alpha-Hydroxypropionic acid Glycyl alcohol AMYL ACETATE (ALL ISOMERS) **GROUNDNUT OIL** Pear oil Amyl acetate, commercial Heptan-2-one **Pentanal** 

Amylacetic ester ILLIPE OIL PENTANOIC ACID Amyl aldehyde Isoamyl acetate Pentyl acetate Ant oil, artificial ISOAMYL ALCOHOL PHOSPHORIC ACID Banana oil Isobutylcarbinol POLY(20)OXYETHYLENE Bran oil Isopentanol SORBITAN MONOOLEATE Brassica carinata oil Isopentyl acetate Propane-1,2,3-triol

Canola oil Isopentyl alcohol Propanoic acid PROPIONIC ACID **CASTOR OIL** Isovaleral CITRIC ACID (70% OR LESS) Isovaleraldehyde Propyl acetate **COCOA BUTTER** Isovaleric aldehyde Pyromucic aldehyde

**COCONUT OIL** LACTIC ACID RAPESEED OIL

RAPESEED OIL (LOW ERUCIC **CORN OIL** LARD **COTTON SEED OIL** Methane carboxylic acid ACID CONTAINING LESS THAN Methanecarboxylic acid dl-Lactic acid 4% FREE FATTY ACIDS)

Ethanoic acid Methylacetic acid RICE BRAN OIL Ethylic acid METHYL AMYL KETONE SAFFLOWER OIL Ethyl butanoate Methyl butanoate sec-Amyl acetate **ETHYL BUTYRATE** METHYL BUTYRATE sec-Pentyl acetate

Ethylformic acid Methyl isoamyl ketone Soda ash

SODIUM ACETATE SOLUTIONS **FISH OIL** Methyl n-amyl ketone

Valeral

Fish protein concentrate (containing Methyl pentyl ketone SODIUM BENZOATE SODIUM CARBONATE 4% or less formic acid) Milk acid

**Fural** n-Amyl acetate **SOLUTION FURFURAL** n-Amyl methyl ketone SOYABEAN OIL N-PROPYL ACETATE SUNFLOWER SEED OIL Glacial acetic acid

Glycerin n-Valeraldehyde Trihydroxypropane

VALERALDEHYDE (ALL **GLYCERINE OLIVE OIL** 

n-Valeric acid

Glyceritol Orthophosphoric acid ISOMERS) Glycerol PALM KERNEL OIL Valerianic acid **GLYCEROL MONOOLEATE** PALM KERNEL OLEIN Valeric acid Glycerol oleate PALM KERNEL STEARIN Valeric aldehyde Glycerol 1-oleate PALM MID-FRACTION Vinegar acid

### **ANNEX II**

Group (vii) – HNS bulk solids	
POTASSIUM NITRATE (UN 1486)	SODIUM NITRATE (UN 1498)
Saltpetre	Chile saltpetre
	Chilean natural nitrate

#### Note

The term 'food' refers to products for people, while 'seed' refers to products for animals.

SEED CAKE (UN 1386) and SEED CAKE (UN 2217) reflecting residues after oil has been extracted from oil-bearing seeds are noted in the HNS Finder (both satisfying the IMSBC/IMDG criteria set out by IMO).

SEED CAKE however is a very generic term which can result from many different crop origins. In APPENDIX 4 of the IMSBC Code, a number of Secondary Names (synonyms) are mentioned in relation to SEED CAKE and some of these can give an impression of possibly having a link to the food industry (i.e. coconut, peanuts, extracted etc.). SEED CAKE however is generally only used for animal or poultry feed and accordingly, none of these terms are recorded here.