

MATERIAL SAFETY DATA SHEET

1.COMPANY INFORMATION

Identification of Preparation	HIDALGO PRODUCTOS, S.A.
	Cta. del pla, 275 (Pol. Ind.) - Valls (Tarragona)
Contact Information	977 60 21 26
Emergency Phones	Servicio de Información Toxicológica (SIT) + 34 91 562 04 20 (24 horas)
E mail:	dptocomercial@hidalgo-products.com

2.PRODUCT INFORMATION

Product Name:	Safety Matches Made of wooden sticks
Brand name	Any
HS Code	360500100
UN Number	1944
Imco Clause	4.1
Trade form	Match Sticks packed in Boxes with striking Surface

3.HAZARDOUS INGREDIENTS AND CHARACTERISTICS

Stick Aspen or poplar stick impregnated with ammonium phosphate and paraffin wax.
Head: A mixture of potassium chlorate with animal glue (technical gelatine) together with inert materials to moderate combustion, and minor amounts of red amorphous phosphorus and colorants.

	CAS-No.	Concentration
Potassium chlorate	3811-04-9	40-70%
Red amorphous phosphorus	7723-14-0	<2%

Box: The side panel(s) are coated with a special composition containing amorphous Red Phosphorus

4.HAZARDOUS INFORMATION

Safety matches pose few hazards in normal use. Safety matches will not ignite, in normal circumstances, unless they are rubbed on the specially prepared striking surface provided on the box or book. In exceptional circumstances, such as severe impact or heavy striking on a smooth, non-thermally conducting surface, safety matches can ignite. Matches do not ignite when heated unless the temperature exceeds 180°C.

The main hazard associated with matches arises because they are readily combustible and misuse may result in burns or uncontrolled fires.

5.SENSITIVITY AND REACTIVITY

Stability	Matches are perfectly stable under all ambient conditions and they have a long shelf life
Cause Unstability	Only Flammable when struck with the Friction side
Unstability Hazard	constitute Potential fire hazard when comes into contact with Oxidiser
Decomposition	Will strong acid the chlorate present decomposes and may caused fire.
Wetted In Water	If wetted and dried may loose adversely the burning characteristics

6.PHYSICAL AND CHEMICAL PROPERTIES

Appearance -	Boxes or books containing wooden sticks carrying an ignition tip.
Odour -	Low, woody smell.
Flammability -	Matches are flammable and may ignite at temperatures in excess of 180°C.
Solubility -	Approximately 10 mg of each match is soluble in water
Physical Stability	Can Break if crushed only under high pressure

MATERIAL SAFETY DATA SHEET

7.FIRE AND EXPLOSION HAZARD

Ignition	Eventhough flammable it is not self igniting
Explosion	Do not explode when lighted
Firing	Catches fire only when comes into contact with Phosphorous or strong acids.
Fire Fighting measures	Water is the most effective extinguishant for match fires. Match fires produce much smoke containing small quantities of acidic gases such as phosphorus oxides. In large conflagrations involving matches breathing apparatus should be used.
Special fire fighting	Move containers from fire only if you can do it without risk. If fire is advanced evacuate and

8.ACCIDENTAL RELIEF MEASURES

Personnal Precautions : Face Mask has to be used since the smoke is suffocating.
During un avoidable conditions we have to keep ourself away from smoke

Environmental Precautions : The fire from matches spreads very fast, so the area can be keep aloof.
Fire can be put of by Water jets or CO2 Fire estinguishers, If the oxygen is cut from the atmosphere the material can be put of to fire. The Smoke consists of Sulphur so the material has to be soaked in water before disposal.

9.FIRST AID MEASURES

Unless large quantities of matches are ingested (>10 matches per kilo of body weight) there is little risk to health following ingestion. If more than this quantity is ingested seek medical attention.

Burns resulting from mishandling should be treated as normal burns. Place injured part under running cold water for 10 minutes. Do not break blisters or remove loose skin. Do not apply ointments or lotions. Dress area with clean, non-fluffy, sterile material. If in doubt seek medical attention.

10.TOXICOLOGY INFORMATION

Most of the constituents of matches are inert non hazardous materials. The hazardous materials present are potassium chlorate and red amorphous phosphorus.

The lowest lethal dose in humans for potassium chlorate is quoted as LDLo = 429 mg/kg body weight NB.Each match head contains approximately 10 mg of potassium chlorate according to EU Regulation.

Red amorphous phosphorus is widely regarded as being non toxic. Hoechst, a leading supplier of this material quote LD50 oral – rat = 15.000 mg/kg body weight

11.HANDLING AND STORAGE

In storage, matches give of no toxic or flammable gases. Matches do not spontaneously catch fire although fires can occur if the product is mishandled. Matches should be stored in a cool dry place away from potential sources of ignition and other highly flammable materials. They should not be stacked higher than 4.5 metres above the ground. Adequate space around the product should be left to minimise the chances of impact damage from, for example, manoeuvring fork lift trucks.

It should be noted that any ignition of matches in intact closed boxes, displays and cases invariably self extinguishes because there is insufficient oxygen in the closed packaging. Only when the case or packaging bursts open is there any danger of sustained combustion taking place.

MATERIAL SAFETY DATA SHEET

12.ECOLOGICAL INFORMATION

Safety matches contain no toxic heavy metals and they do not emit sulphur dioxide when burned. They have very limited impact on the environment being made of mostly natural raw materials. Potassium chlorate is a herbicide but on combustion this is converted into the ecologically harmless compound potassium chloride. Used matches and boxes biodegrade rapidly in the environment

13.DISPOSAL CONSIDERATIONS

Large quantities of matches can be safely disposed of to landfill at an approved site or by controlled combustion at an approved incinerator.

14.TRANSPORT INFORMATION

Matches represent a minimal hazard during transport.

UN NUMBER	1944
Packign Clause	4.1

15.REGULATORY INFORMATION

Matches are classified as articles and do not require labelling for supply. Articles are not required to have safety data sheets in accordance with the Directive 91/155/ECC and this sheet is provided as a convenience to our customers.

The product are manufactured in accordance with EN1783 & BIS

16.OTHER INFORMATIONS

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is only to describe the product. The data does not signify any warranty with regard to the products' properties.

The MSDS certificate is prepared in accordance with EN 1783 & BIS

Training : Normally Unskilled persons are fine to carry and handle safety matches

Special certification is not necessary for Marketting & holding safety matches as per Indian Standards