Nasaco International Limited

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PRODUCT DATA SHEET

NASCOL 314

Chemical Name:	Sodium Isobutyl Xanthate	
Chemical Formula:	$C_4H_9OCS_2Na$	
Molecular Weight:	177.2	
Activity:	% Xanthate by weight % Acetone insolubles	90% min (acetone method) 10% max.
Properties:	Form Colour Solubility	Flake/Pellet Yellow/orange Complete solubility in water

Decomposition

All xanthate products hydrolyse slowly in the presence of moisture producing carbon disulphide, an explosive gas. The shelf life of Nascol 314 is 9 months from date of manufacture.

Activity

The method used for determination of active xanthate content is the acetone method. On a dry weight basis, the active xanthate content is a minimum 80%. Manufacture is from high quality raw materials, components which could destroy the selectivity of the product have been excluded.

Application

Sodium isobutyl xanthate is used as a collector for sulphide minerals in alkaline flotation circuits. Use in acid circuits will lead to the decomposition of the product. It is widely used for copper, iron, and molybdenum sulphide minerals as well as for native metals such as gold.

Sodium isobutyl xanthate can be used as a collector for oxide minerals of base metals which have previously been treated by sulphidisation.

Sodium isobutyl xanthate one of the strongest and the least selective of the xanthates. It can be used in either rougher or scavenger flotation.

Dosage

Dosage rates of sodium isobutyl xanthate vary from 15 to 75 g/t of ore.
Sodium isobutyl xanthate is normally added to the pulp before flotation as an aqueous solution of between 3 and 10% by weight. It is recommended that solutions be stored for no longer than 3 days due to the formation of carbon disulphide.

Handling & Storage

Normal safe handling of sodium isobutyl xanthate should present little risk. The following storage and handling recommendations should be followed.

- Dusting should be eliminated by emptying drums carefully on dissolution
- Sodium isobutyl xanthate should be stored indoors with good ventilation. When in solution, the head space of the storage vessel should be ventilated to avoid carbon disulphide build up.
- Do not allow containers to corrode, as this leads to decomposition of the product by hydrolysis. Used suspect containers first.

• Unused drums should be kept sealed. Containers should be opened carefully under well ventilated conditions. No naked lights.

Protective Clothing

Personnel handling xanthate should wear clean body covering clothing, gloves and chemical workers goggles.

Contamination incidental to normal handling is unlikely to occur, if however skin or eye contact does occur, the following first aid guidelines should be followed.

First Aid

Skin - If skin contact occurs, wash the effected area with plenty of water and a neutral soap for a minimum of five minutes.

Eye - If eye contact occurs, wash with plenty of clean water for a minimum of fifteen minutes. Medical advice should be sought.

Ingestion - In the case of ingestion, induce vomiting and immediately seek medical attention.

Toxicity

The acute oral LD_{50} in rats is 1290 mg/kg.

Prolonged contact with the product or its solutions may cause skin irritation.

Fire

In the case of fire, types A and B extinguishers should be used.

Packaging

Sodium isobutyl xanthate is supplied in open top steel drums of 110kg net weight, big bags of 800kg net weight or poly sacks of 25kg net weight.

Transport

UN Packing Group II or III
Un No.: 3342
ADR Class 4.2
Shipping Name: Spontaneously combustible, Xanthate

Further information and sample are available from:

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