Nasaco International Ltd

Petite Rue 3, 1304 Cossonay, Switzerland

PRODUCT DATA SHEET

NASCOL 311

Chemical Name:	Sodium Isopropyl Xanthate		
Chemical Formula:	$C_3H_7OCS_2Na$	**CAS No.:**	140-93-2
Molecular Weight:	158.2		
Specification:	% Xanthate by weight	Pellet 90% min. (acetone method)	

Properties:	Form	Pellet,
	Colour	Light yellow/green
	Solubility	Complete solubility in water
	H_2O	max 1.5%
	H_2O (crystalline)	max 10.2%
	NaOH	max 1.5%
	Na_2CS_3	max 2%
	Insoluble residue	max 0.5%

Decomposition

All xanthate products hydrolyse slowly in the presence of moisture producing carbon disulphide, an explosive gas.

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 84%. Manufacture is from high quality raw materials, components which could destroy the selectivity of the product have been excluded.

Application

Sodium isopropyl 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, it is effective in native metal flotation, and is widely used in precious metal flotation and the selective flotation of polymetallic base metals.

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

Sodium isopropyl xanthate can be used in either rougher or scavenger flotation.

Dosage

Dosage rates of sodium isopropyl xanthate vary from 15 to 150g/t of ore.
Sodium isopropyl 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 isopropyl xanthate should present little risk. In order to minimise any risk, the product is supplied in pellet form to minimise dusting.

- Dusting should be eliminated by emptying drums carefully on dissolution
- Sodium isopropyl 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. Use containers on a first in first out basis.
- Unused drums should be kept sealed. Containers should be opened carefully under well ventilated conditions. No naked lights.

Protective Clothing

Personnel handling xanthates 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, holding the eye open. 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 800 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 isopropyl xanthate is supplied in open top steel drums of 120kg net or in Big Bags of 800kg net or in sacks of 50kg net all with polyethylene liner.

Transport

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

Further information and samples are available from:

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