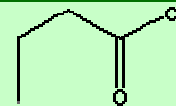


n-BUTYRYL CHLORIDE

PRODUCT IDENTIFICATION

CAS NO.	141-75-3
EINECS NO.	205-498-5
FORMULA	CH ₃ CH ₂ CH ₂ COCl
MOL WT.	106.55
H.S. CODE	
TOXICITY	
SYNONYMS	Butyric acid chloride; Butyric chloride; n-Butyric acid chloride; Butyl chloride; Butanoyl Chloride;
RAW MATERIALS	
CLASSIFICATION	



PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	colorless to light yellow liquid with a strong pungent odor.
MELTING POINT	-89 C
BOILING POINT	102 C
SPECIFIC GRAVITY	1.026
SOLUBILITY IN WATER	Decomposes
SOLVENT SOLUBILITY	miscible with almost aprotic organic solvents
pH	
VAPOR DENSITY	3.67
REFRACTIVE INDEX	1.4120
NFPA RATINGS	Health 3, Flammability 3, Reactivity: 0
AUTOIGNITION	
FLASH POINT	18 C
STABILITY	It undergoes vigorous hydrolysis with water.

GENERAL DESCRIPTION & APPLICATIONS

Acyl is a radical formed from an organic acid by removal of a hydroxyl group. The general formula of acyl compound is RCO-. Acyl halide is one of a large group of organic substances containing the halocarbonyl group, have the general formula RCO·X, where X is a halogen atom (fluorine, chlorine, bromine, iodine, and astatine) and R may be aliphatic, alicyclic, aromatic, and H etc. In substitutive chemical nomenclature, their names are formed by adding '-oyl' as a suffix to the name of the parent compound; ethanoyl chloride, CH₃COCl, is an example. The terms acyl and aroyl halides refer to aliphatic or aromatic derivatives, respectively. Acyl halides are made by replacing the -OH group in carboxylic acids by halogen using halogenating agents. They react readily with water, alcohols, and amines and are widely used in organic synthetic process whereby the acyl group is incorporated into the target molecules by substitution of addition-elimination sequence called acylation reaction. Acylation reaction involves substitution by an electron donor (nucleophile) at the electrophilic carbonyl group (C=O). Common nucleophiles in the acylation reaction are aliphatic and aromatic alcohols, both of which give rise to esters and amines (RNH₂) which give amides. The carboxylic acid (X = OH) itself can function as an acylating agent when it is protonated by a strong acid catalyst as in the direct esterification of an alcohol. Two common acylation agents, with the general formula RCOX, are acid halides (X = halogen atom) and anhydrides (X = OCOR). Schotten-Baumann reaction is an acylation reaction that uses an acid chloride in the presence of dilute alkali to acylate the hydroxyl and amino group of organic compounds. There are also other acylating agents. Benzoyl Chloride belongs to acyl halides. Acyl halides are involved in acetylation process which introduce an acetyl group (CH₃CO-) into compounds. Benzoyl Chloride decomposes violently by heating or on exposure to moist air or

water. It reacts violently with strong oxidants, metals (especially iron), alkali and earth alkali metals, bases and wide range of organic substances such as amines, dimethyl sulfoxide and alcohols. The reactions cause fire and explosion hazard. It is used to introduce benzenecarbonyl groups into compounds. Typical reactions undergone by benzoyl chloride are the Schotten-Baumann reaction (the benzoylation of compounds containing a hydrogen), and the Friedel-Crafts reactions (preparation of substituted benzophenones). It is used in manufacturing peroxides such as a benzoyl peroxide and t-butyl perbenzoate. It is also used in the synthesis of benzophenone and its derivatives used in manufacturing pesticides, pharmaceuticals, perfume fixative, polymerization catalyst, benzolating agents, and dyestuffs. n-Butyryl Chloride, C-4 Acyl halide, is a colorless to light yellow liquid with a strong pungent odor; decomposes in water; soluble in almost aprotic organic solvents. It is used as an intermediate for organic synthesis for the preparation of pharmaceuticals, agrochemicals, dyes, cellulose esters, and peroxide compounds.

SALES SPECIFICATION

APPEARANCE	colorless to light yellow liquid
ASSAY	99.0% min
PHOSPHIDE	0.2% max
COLOR, APHA	30 max

TRANSPORTATION

PACKING	200kgs in drum
HAZARD CLASS	3 (Packing group: II)
UN NO.	2353

OTHER INFORMATION

Hazard Symbols: F C, Risk Phrases: 11-34, Safety Phrases: 16-23-26-36-45

PRICES

Open