



## 3-Cyanopyridine

### Safety Data Sheet

According to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of Compilation	: April 04, 2012
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# 3-Cyanopyridine

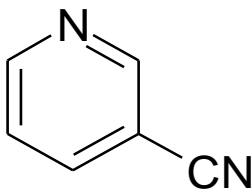
## Safety Data Sheet

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### SECTION 1 : Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product identification	: 3-Cyanopyridine
CAS RN	: 100-54-9
EC#	: 202-863-0
Trade name	: 3-Cyanopyridine
Systematic Name	: 3-Pyridinecarbonitrile, Nicotinonitrile
Synonyms	: 3-Azabenzonitrile, 3-Cyanopyridine, Nicotinic acid nitrile 3-Pyridinecarbonitrile, 3-Pyridinenitrile, 3-Pyridylcarbonitrile
Molecular Formula	: C <sub>6</sub> H <sub>4</sub> N <sub>2</sub>
Structural Formula:	



#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Identified uses:

The primary use of 3-Cyanopyridine is as an intermediate in the manufacturing of Pharmaceuticals. It is also used as an intermediate in the agrochemical industries and as a food chemical in the manufacture of nicotinic acid and nicotinamide.

**Uses advised against:** None

#### 1.3 Details of the supplier of the safety data sheet

**FACTORY & REGISTERED OFFICE:** Jubilant Ingrevia Limited, Bhartiagram, Gajraula, District: Amroha, Uttar Pradesh-244223, India  
T +91-5924-267437 & +91-5924-267438

**HEAD OFFICE:** Jubilant Ingrevia Limited, Plot 1-A, Sector 16-A, Institutional Area, Noida, Uttar Pradesh, 201301 - India  
T +91-120-4361000 - F +91-120-4234881 / 84 / 85 / 87 / 95 / 96 [support@jubl.com](mailto:support@jubl.com) - [www.jubilantingrevia.com](http://www.jubilantingrevia.com)

#### 1.4 Emergency telephone

For Chemical Emergency ONLY (in the case of fire, leak, spill, exposure or accident) Call

Chemtrec: 1-800-424-9300 (US), 1-703-527-3887 (Outside U.S.)

Chemtrec (India) : 000-800-100-7141

For ALL other emergencies call Emergency Control Room Gajraula at 99970 22412

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance

##### GHS US Classification

Combustible liquid: Category 4	H227
Acute toxicity oral: Category 4	H302
Serious eye damage/eye irritation: Category 1	H318

#### 2.2 Label elements

##### GHS US Classification



**Pictograms:**



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GHS05-Corrosive, GHS07-Exclamation mark

**Signal word:** Danger!

### 2.3 Hazard and precautionary statements

#### HAZARD STATEMENTS

- H227: Combustible liquid.
- H302: Harmful if swallowed.
- H318: Causes serious eye damage.

#### PRECAUTIONARY STATEMENTS

- P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P270: Do not eat, drink or smoke when using this product.
- P264: Wash hands thoroughly after handling.
- P370+378: In case of fire: Use water for extinction
- P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- H330: Rinse mouth.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes Remove contact lenses, if present and easy to do. Continue rinsing.
- H310: Immediately call a POISON CENTER or doctor/physician.
- P405: Store locked up
- P501: Dispose of the container as per local norms and regulations.

### 2.4 Other Hazards

- Substance is not classified as PBT nor as vPvB. For further details see section 12.

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical	CAS #	EC#	Purity	GHS-US classification
3-Cyanopyridine	100-54-9	202-863-0	>98%	Combustible liquid: Category 4 Acute toxicity oral: Category 4 Serious eye damage/eye irritation: Category 1

### SECTION 4: FIRST AID MEASURES

#### 4.1 Description of First aid measures

- **Skin Contact:** Wash exposed area twice with soap and water. The exposed area should be examined by medical personnel if irritation or pain persists after the area has been washed.
- **Eye Contact:** Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.
- **Inhalation:** If exposed to excessive levels remove to fresh air and get medical attention if cough or other symptoms develop.
- **Ingestion:** If swallowed, contact physician or poison control center immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

- **Acute:** Cyanopyridines in general are expected to be moderately irritating to skin, eyes and mucous membranes. While this material does not appear to exhibit significant dermal toxicity, extended contact (i.e, from wearing saturated clothing) should be avoided. Oral toxicity results show slight toxicity in laboratory animals, but ingestion is not likely to be a primary route of exposure. No information is available regarding inhalation toxicity of this material.
- **Delayed Effects:** None known.

#### 4.3. Indication of any immediate medical attention and special treatment needed

- **Note to Physician:** No specific indications. Treatment should be based on the judgment of the physician in response to the reactions of the patient.

### SECTION 5 : FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing media



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**Appropriate Extinguishing Media:** Use water fog, alcohol resistant foam, carbon dioxide, or dry chemical.

### 5.2. Special hazards arising from the substance or mixture

- **Hazardous Products of Combustion:** Toxic vapors may be released upon thermal decomposition (cyanides, nitrogen oxides, carbon monoxide).
- **Potential for Dust Explosion:** No data available -- handle in a manner that prevents generation of potentially explosive dust.
- **Special Flammability Hazards:** This product is an organic solid. As such, in its finely divided form, this product has the potential to present a dust explosion hazard under certain conditions; although no dust, explosion data is currently available. Handle this product in a manner that prevents dust generation and accumulation, and refer to National Fire Protection Association (NFPA) Standard 654 for further information on prevention of dust explosions.

### 5.3. Advice for firefighters

- **Basic Fire Fighting Guidance:** Wear self-contained breathing apparatus and full protective clothing (i.e., Bunker gear). Skin and eye contact should be avoided. Normal firefighting procedures may be used.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

- **Evacuation Procedures:** Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
- **Special Instructions:** See Section 8 for personal protective equipment recommendations. Remove all contaminated clothing to prevent further absorption. Decontaminate affected personnel using the first aid procedures in Section 4. Leather shoes that have been saturated must be discarded.

### 6.2. Environmental precautions

- Prevent releases to soils, drains, sewers and waterways.

### 6.3. Methods and material for containment and cleaning up

- Remove all ignition sources. Ventilate the area of spill or leak. Wear protective equipment during clean up. Material can then be collected for later disposal. After collection of material, flush area with water. Dispose of the material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable federal, state or local laws.

### 6.4. Reference to other sections

- Refer to section 8 for information on selecting personal protective equipment. Refer to section 13 for information on spilled product, absorbent and clean up material disposal instructions.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

- **Precautions for Unique Hazards:** Not applicable
- **Practices to Minimize Risk:** Wear appropriate protective equipment when performing maintenance on contaminated equipment. Wash hands thoroughly before eating or smoking after handling this material. Do not eat, drink or smoke in work areas. Prevent contact with incompatible materials. Avoid spills and keep away from drains. Handle in a manner to prevent generation of aerosols, vapors or dust clouds.
- **Special Handling Equipment:** Not applicable.

### 7.2. Conditions for safe storage, including any incompatibilities

- **Storage Precautions & Recommendations:** Maintain dry, ventilated conditions for storage. Protect containers against physical damage. Keep away from strong acids, strong bases and oxidizing agents.
- **Dangerous Incompatibility Reactions:** Avoid strong acids, strong bases, and oxidizing agents.
- **Incompatibilities with Materials of Construction:** None known.

### 7.3. Specific end use(s)

- The use of 3-Cyanopyridine is as an intermediate in the manufacturing of Pharmaceuticals. It is also used as an intermediate in the agrochemical industries.

## SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

- Exposure Limits Values

Chemical name	WEL 8hr TWA (ppm)	STEL (ppm)	NIOSH	OSHA - Final PELs
3-Cyanopyridine	None	None	None	None

#### 8.1.1 Derived No-Effect-Levels (DNEL) / Predicted No-effect-concentration (PNEC)

- DNEL and PNEC data not available.



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- **Overview of typical dose descriptors for all endpoints**  
Available dose-descriptor(s) per endpoint for the substance as a result of its hazard assessment.

### Acute Toxicity (Oral/Dermal/Inhalation)

- It causes serious eye damage. It is harmful if swallowed. Symptoms of overexposure include weakness, dizziness, headache, nausea, loss of appetite and unconsciousness. Extended exposure may lead to irritation and possibly systemic poisoning.

### Irritation/Corrosivity (Skin/eyes/Respiratory tract):

- Although in modern skin or eye studies have been conducted, the weight of evidence indicates that the material is likely to be a severe eye irritant, it is irritant to the eyes. In humans, severe irritation of the eyes resulted from exposure. The material is harmful if swallowed.

### Repeated dose Toxicity, sub acute/sub chronic/chronic(Oral/Dermal/Inhalation):

- **Chronic Exposure**  
No chronic exposure data were located.

## 8.2. Exposure controls

### 8.2.1 Appropriate Engineering Controls:

- Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. Local ventilation is usually preferred. Ensure that eyewash stations and safety showers are close to the workstation location.

### 8.2.2. Personal Protection:

- Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
- **Hands:** Wear appropriate protective gloves to prevent skin exposure.
- **Eyes:** Wear impact resistance eye protection with side shields or goggles. Wear a face shield along with goggles when working with corrosive, highly irritating or toxic substances. Safety goggles/ Chemical Safety glasses and Face shield.
- **Clothing:** Boots and Impervious clothing to prevent contact.
- **Respirator:** Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties.

Sr.No.	Parameter	Typical value
1.	Appearance	3-Cyanopyridine is a liquid or, when cool, a waxy solid which is not available to be inhaled as particles. It is used as a liquid in all post-manufacturing applications
2.	Odor	Characteristic
3.	Odor Threshold	Not available
4.	pH	approx. 6 @ 10 g/L and 22°C
5.	Melting point/Freezing point	51°C
6.	Boiling point	206.9 deg C @ 760.00mmHg
7.	Flash point	88 °C at 1,013 hPa.
8.	Evaporation rate (n-BuAc=1)	Not available
9.	Flammability (Solid, gas)	Not flammable
10.	Upper/lower flammability or Explosive limits	Not available
11.	Vapor pressure	0.296 mm Hg, or 0.395 hPa, at 25 °C.
12.	Vapor density (air=1)	Not available
13.	Relative density	1.159g/mL
14.	Solubility	Soluble in water (135 g/L @ 20°C), alcohol, benzene, ether, hot petrol ether.
15.	Log Pow, partition coefficient ( Octanol /water)	0.36@25°C
16.	Auto-ignition temperature	> 600°C
17.	Decomposition temperature	Not available



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18.	Viscosity	Not available
19.	Explosive property	Not available
20.	Oxidizing property	Not available

### 9.2. Other information.

pKa (@25°C):1.39@24°C; Refractive Index:1.525 @ 50°C.; Molecular Weight:104.11; Koc:37.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

- Not classified as dangerously reactive

### 10.2. Chemical stability

- Stable under normal temperature and pressure.

### 10.3. Possibility of hazardous reactions

- Will not occur.

### 10.4. Conditions to avoid

- Avoid static discharge and generation of dust. Avoid ignition sources, and sources of heat

### 10.5. Incompatible materials

- Avoid strong acids, strong bases, and oxidizing agents

### 10.6. Hazardous decomposition products

- Toxic vapors may be released upon thermal decomposition (cyanides, nitrogen oxides, carbon monoxide).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### a) ACUTE TOXICITY

- Oral

Method	Result	Reference
rat (Sherman-Wistar) male oral: gavage no information on method	LD50: 1100 mg/kg bw (male) based on: test mat	Karnatz, R. A., R. A. Kattau and P. Mackell (1973)
	LD50: 1455 - 1475 mg/kg (rat)	Katoku (undated)

- Dermal

Method	Result	Reference
rabbit (Albino) male/female  Coverage: occlusive not stated	LD50: 2 gm/kg (male) based on: test mat. LD50: 2000- 4000 mg/kg (female) based on: test mat.	Gabriel KL (1978)

- Inhalation

No data available.

#### b) SKIN CORROSION/IRRITATION

Method	Result	Reference
rabbit (Albino)  Coverage: occlusive 52 FR 42964; U.S. Department of Transportation	not irritating qualitative assessment of corrosion: (mean) (Time point: 48 h) (qualitative assessment for skin corrosion)	FitzGerald GB (1991)

#### c) SERIOUS EYE DAMAGE/IRRITATION

Method	Result	Reference
equivalent or similar to no information on method	Strongly irritating : (mean) (qualitative assessment))	International Labour Office (1983)

**Summary:** 3-Cyanopyridine was found to be non-irritating to the skin of rabbits after 3 or 60 minutes, and 4 hours. However, application of 0.1 ml into the eyes of rabbits resulted in severe damage, which persisted throughout 21 days. There is no data available for respiratory irritation.

#### d) RESPIRATORY OR SKIN SENSITIZATION;

- Skin

Method	Result	Reference
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guinea pig (Hartley HsdPOC: DH) female	not sensitising	Berthold K
Buehler test	No. with positive reactions:	
Induction: epicutaneous, occlusive	1st reading: 0 out of 10 (negative control); 24 h after chall.; dose: 0.5 ml water	
Challenge: epicutaneous, occlusive OECD Guideline 406 (Skin Sensitisation) (Also EC Guideline 96/54/EEC)	2nd reading: 0 out of 10 (negative control); 48 h after chall.; dose: 0.5 ml water	
	1st reading: 0 out of 20 (test group); 24 h after chall.; dose: 0.5 ml	
	2nd reading: 0 out of 20 (test group); 48 h after chall.; dose: 0.5 ml	

- **Respiratory: No data is available**

3-Cyanopyridine is not a dermal sensitiser when tested in vivo in OECD guideline procedures. There is no indication that it is a respiratory sensitiser. It is thus not classified.

e) **GERM CELL MUTAGENICITY**

Method	Results	Reference
bacterial reverse mutation assay (e.g. Ames test) (gene mutation)	Evaluation of results: negative	Mizuno, F, Enomoto Y, IshigeY (2001)
S. typhimurium TA 1535, TA 1537, TA 98 and TA 100 (met. act.: with and without)	Test results: negative for S. typhimurium TA 1535, TA 1537, TA 98 and TA 100(all strains/cell types tested); met. act.: with and without; cytotoxicity: yes	
E. coli WP2 uvr A (met. act.: with and without)	negative for E. coli WP2 uvr A(all strains/cell types tested); met. act.: with and without; cytotoxicity: yes	
Doses: 313, 625, 1250, 2500, 5000 micromole/plate (common ratio of 2). Maximum concentration of 50 mg/mL of 3-cyanopyridine in injection-use water, the solution was diluted with the same solvent at a common ration of 2 for use. equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)		

f) **CARCINOGENICITY**

- Not listed by ACGIH, NTP, IARC and OSHA.

g) **REPRODUCTIVE TOXICITY**

- No information is available.

h) **STOT-SINGLE EXPOSURE**

- No information is available.

i) **STOT- REPEATED EXPOSURE**

- No information available.

j) **ASPIRATION HAZARD.**

- No information available.

### 11.2 Other Information

- **Primary Route(s) of Exposure:** Skin contact and absorption, eye contact, and inhalation. Ingestion is not likely to be a primary route of exposure.
- **Most important symptoms and effects, both acute and delayed** Cyanopyridines in general are expected to be moderately irritating to skin, eyes and mucous membranes. While this material does not appear to exhibit significant dermal toxicity, extended contact (i.e. from wearing saturated clothing) should be avoided. Oral toxicity results show slight toxicity in laboratory animals, but ingestion is not likely to be a primary route of exposure. No information is available regarding inhalation toxicity of this material. **Delayed Effects:** None known.
- **Additive or Synergistic effects:** None known.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### 12.1.1 Ecotoxicity:

- EC50 Tetrahymena sp. = 581.6 mg/L (Reference :Schultz 1987).



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### 12.1.2 Chronic Toxicity to Fish:

- No information is available.

### 12.2. Persistence and degradability

- 3-Cyanopyridine was not readily biodegradable in a ready biodegradability test using the MITI (OECD 301C) protocol.
- 3-Cyanopyridine showed evidence of anaerobic degradation in sediment slurries, with a half-life of less than 1 day, and dull degradation within 19 days.

### 12.3. Bio accumulative potential

- Bio concentration is not expected to occur. Low potential for Bioaccumulation.

### 12.4. Mobility in soil

- This material is expected to have moderate mobility in soil. It absorbs to most soil types

### 12.5. Results of PBT and vPvB assessment

- The substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII.

### 12.6. Other adverse effects

- No information is available.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment method

- US EPA Waste Number:** Non-Hazardous
- Waste Classification:** (per US regulations) The waste may be classified as "special" or hazardous per State regulations.
- Waste Disposal: NOTE:** Generator is responsible for proper waste characterization. State hazardous waste regulations may differ substantially from federal regulations. Dispose of this material responsibly, and in accordance with standard practice for disposal of potentially hazardous materials as required by applicable international, national, regional, state or local laws, and environmental protection duty of care principles. Do NOT dump into any sewers, on the ground, or into any body of water. For disposal within the EC, the appropriate classification code according to the European Community List of Wastes should be used. Note that disposal regulations may also apply to empty containers and equipment rinsates.

## SECTION 14: TRANSPORT INFORMATION

- This substance is considered to be non hazardous for transport by Air/Rail/Road and Sea and is not regulated by IATA/ICAO/ARD/RID/IMO/IMDG.

Mode of Transport	Agency
Land transport	ADR/RID
Maritime Transport	IMDG
Air Transport	IATA

### 14.1. UN number

- Not applicable.

### 14.2. UN proper shipping name

- Not applicable.

### 14.3. Transport hazard class(es)

- Not available.

### 14.4. Packing group

- Not available.

### 14.5. Environmental hazards

- Not a marine pollutant

### 14.6. Special precautions for user

- Not applicable

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

- European/International Regulations.

### Classification (as per Regulation (EC) No 1272/2008):

**Hazards Class and Category:** Acute toxicity oral Cat.4; Serious eye damage Cat.1

- Hazard Statements:** H302; H318

### Chemical Inventory Lists: Status

TSCA: Listed





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EINECS:	Listed (202-863-0)
Canada (DSL/NDSL):	Listed (NDSL)
Japan:	Listed ((5)-742)
Korea:	Listed (KE-29932)
Australia:	Listed
Taiwan:	Listed
New Zealand:	Listed
China:	Listed
Philippines:	Listed
Switzerland:	Not Listed

### US information

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):** 3-Cyanopyridine is not listed

**SARA 302/304 :** 3-Cyanopyridine is not listed

**SARA 311/312 :** See section 2 for more information

**California Prop. 65:** 3-Cyanopyridine is not listed

**CAA (Clean Air Act):** 3-Cyanopyridine is not listed

**CWA (Clean Water Act):** 3-Cyanopyridine is not listed

### EU Information

**German Water Hazard Classification:** WGK = 1 (self-classification)

**Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006:** 3-Cyanopyridine is not listed

## SECTION 16: OTHER INFORMATION

### (a) Compilation information of safety data sheet

Date of compilation	: April 04, 2012
Chemical	: 3-Cyanopyridine
CAS #	: 100-54-9.
File Name	: 0021Gj Ghs19 Div.2 sds 3-cyanopyridine
Revision Number	: 19
Date of Issue of SDS	: February 21, 2024
Revision Due Date	: January, 2027
Supersedes date	: January 02, 2024

### (b) A key or legend to aberrations and acronyms used in the safety data sheet

- **PBT**=Persistent Bioaccumulative and Toxic
- **vPvB**=Very Persistent and Very Bioaccumulative
- **SCBA**=Self Contained Breathing Apparatus
- **NIOSHREL**=National Institute for Occupational Safety and Health Recommended Exposure Limit
- **OSHA PEL**=Occupational Safety and Health Administration Permissible Exposure Limit
- **OELTWA**= Occupational Exposure Limit Time Weighted Averages
- **IDLH**=Immediately Dangerous to Life or Health
- **UEL**=Upper Explosive Limit
- **LEL**= Lower Explosive Limit
- **CMR**:Carcinogenic, Mutagenic or toxic to Reproduction
- **ESIS**: European chemical Substance Information System
- **RTECS**=Registry of Toxic Effects of Chemical Substances
- **NTP**=National Toxicology Programm
- **NOEC**=No Observed Effect Concentration
- **REACH**=Registration, Evaluation, Authorisation and Restriction of Chemical substances
- **IARC**=International Agency for Research on Cancer
- **EPA**=Environmental Protection Agency
- **EPA TSCA**=Environmental Protection Agency Toxic Substances Control Act
- **CERCLA**=Comprehensive Environmental Response, Compensation, and Liability Act
- **OECD**= Organization for Economic Co-operation & Development
- **SARA**= Superfund Amendments and Reauthorization Act
- **NFPA**= National Fire Protection Association
- **TEC**=Transport Emergency Card
- **WHIMS**= Workplace Hazardous Materials Information System
- **DSL/NDSL**= Domestic/Non-Domestic Substances List



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- **CSR**=Chemical Safety Report
- **BCF** = Bio Concentration Factor
- **DNEL** = Derived No Effect Level
- **PNEC** = Predicted No Effect Concentration
- **TLV** = Threshold Limit Value
- **ACGIH** = American Conference of Governmental Industrial Hygienists
- **EN** = Europäische Norm
- **EC** = European Community
- **REACH** = Registration, Evaluation and Authorisation of Chemicals
- **CLP** = Classification, Labelling and Packaging
- **LD / LC** = Letale Dosis / Lethal Concentration
- **GHS** = Globally Harmonised System
- **ADR** = Accord européen relative au transport international de marchandises
- **RID** = Règlement concernant le transport International ferroviaire de marchandises Dangereuses
- **IMDG-Code** = International Maritime Code for Dangerous Goods
- **EmS** = Emergency measures on Sea
- **ICAO** = International Civil Aviation Organization
- **IATA/DGR**= International Air Transport Association/Dangerous Goods Regulations

### (c) Key Literature reference and sources for data

#### Biographical reference and data sources

- CLP REG (regulation) (EC) no. 1272/2008, last modification by regulation (EC) no. 790/2009
- DIR 67/548/EWG, last modification by DIR 2009/2/EC
- REG (EC) no. 1907/2006, last modification by REG (EC) Nr. 453/2009

### (d) List of hazard statements

Hazards Statements	
	H227,H302;H318 H227: Combustible liquid. H302: Harmful if swallowed H318: Causes serious eye damage

### SDS US (GHS HazCom 2012)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

*End of safety data sheet*