

## Guide to determine UN number and packing group

This is a guide to assist you on how to determine UN number and packing group for chemicals in [HS014 Chemical inventory form](#) or [Online Chemical Waste Disposal System](#).

### What is UN number?

A UN number is a four-digit number that identifies dangerous goods, hazardous substances and articles (such as explosives, flammable liquids, toxic substances, etc.) in the framework of international transport. They are assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.

### Steps to determine UN number

1. Assign the waste category or description of your waste chemicals.
2. Go to Australian Dangerous Goods Code edition 7.6, [https://www.ntc.gov.au/Media/Reports/\(A890348C-BEE7-3C64-A770-E98CFD8DDEFA\).pdf](https://www.ntc.gov.au/Media/Reports/(A890348C-BEE7-3C64-A770-E98CFD8DDEFA).pdf)
3. Go to Table 3.2.3
4. Search the relevant name and description in column 2 which matches step 1.
  - a. If your chemical is not a mixture, it will have a dedicated UN number e.g. Acetone
  - b. If it is a mixture, you must decide what is the generic description. Description often has N.O.S (not otherwise specified) at the end.
5. Retrieve UN number in column 1.

### For example:

1. If your waste bottle consists of methanol and benzene, this waste bottle is flammable liquid, toxic mixture.
2. Check on [Australian Dangerous Goods Code edition 7.6, Table 3.2.3](#).

PART 3: DANGEROUS GOODS LISTS, SPECIAL PROVISIONS AND LIMITED QUANTITIES EXCEPTIONS

UN No. (1)	Name and Description (2)	Class or Division (3)	Subsidiary Risk (4)	Packing Group (5)	Special Provisions (6)	Limited Quantities (7)	Packing Instruction (8)	Special Packing Instructions (9)	Special Provisions (10)	Special Provisions (11)
Ref	3.1.2	2.0	2.0	2.0.1.3.3.3	3.4	4.1.4	4.1.4	4.2.5	4.2.5	4.2.5
1992	FLAMMABLE LIQUID, TOXIC, N.O.S.	3	6.1	I	274	0	P001		T14	TP2 TP13 TP27
		3	6.1	II	274	1 L	P001 IBC02		T7	TP2 TP13
		3	6.1	III	223 274	5 L	P001 IBC03		T7	TP1 TP28
1993	FLAMMABLE LIQUID, N.O.S.	3		I	274	0	P001		T11	TP1 TP27
		3		II	274	1 L	P001 IBC02		T7	TP1 TP8 TP28
		3		III	223 274	5 L	P001 IBC03 LP01		T4	TP1 TP29
1994	IRON PENTACARBONYL	6.1	3	I	354	0	P001		T22	TP2 TP13
1999	TARS, LIQUID, including road oils, and cutback bitumens	3		II		5 L	P001 IBC02		T3	TP3 TP29

3. The waste bottle belongs to Flammable liquid, toxic N.O.S. UN number is 1992.

The table below is the category often used on campus (extracted from [Australian Dangerous Goods Code edition 7.6, Table 3.2.3.](#))

Name & Description	Class	UN No.
CORROSIVE LIQUID, N.O.S.	8	1760
CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.	8	3264
CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	8	3265
CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.	8	3266
CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.	8	3267
CORROSIVE LIQUID, FLAMMABLE, N.O.S.	8	2920
CORROSIVE LIQUID, OXIDISING, N.O.S.	8	3093
CORROSIVE LIQUID, SELF- HEATING, N.O.S.	8	3301
CORROSIVE LIQUID, TOXIC, N.O.S.	8	2922
CORROSIVE LIQUID, WATER- REACTIVE, N.O.S.	8	3094
CORROSIVE SOLID, N.O.S.	8	1759
CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.	8	3260
CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.	8	3261
CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.	8	3262
CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.	8	3263
CORROSIVE SOLID, FLAMMABLE, N.O.S.	8	2921
CORROSIVE SOLID, OXIDISING, N.O.S.	8	3084
CORROSIVE SOLID, SELF- HEATING, N.O.S.	8	3095
CORROSIVE SOLID, TOXIC, N.O.S.	8	2923
CORROSIVE SOLID, WATER- REACTIVE, N.O.S.	8	3096
FLAMMABLE LIQUID, N.O.S.	3	1993
FLAMMABLE LIQUID, CORROSIVE, N.O.S.	3	2924
FLAMMABLE LIQUID, TOXIC, N.O.S.	3	1992
FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.	3	3286
FLAMMABLE SOLID, CORROSIVE, INORGANIC, N.O.S.	4.1	3180
FLAMMABLE SOLID, CORROSIVE, ORGANIC, N.O.S.	4.1	2925
FLAMMABLE SOLID, INORGANIC, N.O.S.	4.1	3178
FLAMMABLE SOLID, ORGANIC, N.O.S.	4.1	1325
FLAMMABLE SOLID, ORGANIC, MOLTEN, N.O.S.	4.1	3176

Name & Description	Class	UN No.
FLAMMABLE SOLID, OXIDISING, N.O.S.	4.1	3097
FLAMMABLE SOLID, TOXIC, INORGANIC, N.O.S.	4.1	3179
FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.	4.1	2926
OXIDISING LIQUID, N.O.S.	5.1	3139
OXIDISING LIQUID, CORROSIVE, N.O.S.	5.1	3098
OXIDISING LIQUID, TOXIC, N.O.S.	5.1	3099
OXIDISING SOLID, N.O.S.	5.1	1479
OXIDISING SOLID, CORROSIVE, N.O.S.	5.1	3085
OXIDISING SOLID, FLAMMABLE, N.O.S.	5.1	3137
OXIDISING SOLID, SELF-HEATING, N.O.S.	5.1	3100
OXIDISING SOLID, TOXIC, N.O.S.	5.1	3087
OXIDISING SOLID, WATER- REACTIVE, N.O.S.	5.1	3121
TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S.	6.1	3289
TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.	6.1	2927
TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S.	6.1	2929
TOXIC LIQUID, INORGANIC, N.O.S.	6.1	3287
TOXIC LIQUID, ORGANIC (CYTOTOXIC DRUG), ADGC, section 3.2.5		
TOXIC LIQUID, ORGANIC, N.O.S.	6.1	2810
TOXIC LIQUID, OXIDISING, N.O.S.	6.1	3122
TOXIC LIQUID, WATER-REACTIVE, N.O.S.	6.1	3123
TOXIC SOLID, CORROSIVE, INORGANIC, N.O.S.	6.1	3290
TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S.	6.1	2928
TOXIC SOLID, FLAMMABLE, INORGANIC, N.O.S.	6.1	3535
TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S.	6.1	2930
TOXIC SOLID, INORGANIC, N.O.S.	6.1	3288
TOXIC SOLID, ORGANIC (CYTOTOXIC DRUG), ADGC, section 3.2.5		
TOXIC SOLID, ORGANIC, N.O.S.	6.1	2811
TOXIC SOLID, OXIDISING, N.O.S.	6.1	3086
TOXIC SOLID, SELF-HEATING, N.O.S.	6.1	3124
TOXIC SOLID, WATER-REACTIVE, N.O.S.	6.1	3125

### **What is packing groups?**

Packing groups are used for the purpose of determining the degree of protective packaging required for dangerous goods during transportation.

- **Group I:** great danger, and most protective packaging required. Some combinations of different classes of dangerous goods on the same vehicle or in the same container are forbidden if one of the goods is Group I.
- **Group II:** medium danger
- **Group III:** minor danger among regulated goods, and least protective packaging within the transportation requirement

Note: If one of the individual SDS has lower number of packing group, the lower number packing group should be used i.e. the most dangerous packaging group should be listed

**From above example:** the packing group is II. You may also confirm that on any of their individual SDS.