Discussion of selected waste categories

CONTENTS

1	Int	roduc	tion	2
2	No	n-haza	ardous waste	3
	2.1	WEE	E (Waste of electrical and electronic equipment)	3
	2.2	Meta	als	3
	2.3	Card	board/paper	3
	2.4	Plast	ics	3
	2.5	Resid	dual waste	4
	2.6	Woo	den waste	4
	2.7	Orga	nic/galley waste	4
3	Wa	aste th	at may be hazardous	4
	3.1	Dem	olition waste	4
	3.2	Blast	ing sand/removing surface treatments	4
4	Ha	zardoı	us waste	5
	4.1	Batte	eries	5
	4.2	Gase	s and pressure vessels	5
	4.3	Paint	t, glue and lacquer	6
	4.4	Oily	rags and oily filters	6
	4.5	Drilli	ng-related waste	6
	4.5	5.1	Water-based drilling fluid waste	6
	4.5	5.2	Waste following offshore slop treatment	7
	4.5	5.3	Liquid waste that is emitting or evaporating hazardous gas	7
	4.5	5.4	Waste containing glycol (MEG/TEG)	7
	4.5	5.5	Oily liquid waste from rigs and from drilling with oil-based drilling fluids	7
	4.5	.6	Tank cleaning waste	8
5	Lim	nit valı	ues for hazardous waste classification	9
	5.1	Wast	te containing heavy metals	9
	5.2	Orga	nic environmental pollutants	11
6	Exa	ample	s of waste that is NOT hazardous waste	12
7	Coi	nversi	on table	12

1 Introduction

The following types of materials shall be sorted based on their properties, in accordance with Norwegian regulations:

- Hazardous waste, according to Chapter 11 of the Waste Regulations
- Radioactive waste, according to Chapter 16 of the Waste Regulations
- EE waste, according to Chapter 1 of the Waste Regulations
- Waste covered by Chapter 10A of the Waste Regulations
 - Food waste
 - Plastics
 - Textiles
 - Glass/metal packaging
 - Corrugated cardboard/paper
- Infectious waste, according to Section 3 of the Regulations relating to infectious health waste
- Explosives, according to Section 11-2 (3) of the Waste Regulations
- Radioactive isotopes, according to Chapter 16 of the Waste Regulations

The recommendation is to use waste codes from the Norwegian Standard NS 9431:2011 "Klassifikasjon av avfall" (Classification of waste). The waste codes are divided into the following sub-series:

		Textiles, leather, furniture and fixtures
Paper, cardboard and carton	2200	Chemicals
Glass	2300	Batteries
Metals	2400	Transportation carriers
EE waste	3000	Radioactive waste
Masses and inorganic matter	6000	Medical waste
Plastics	7000	Hazardous waste
Rubber	9900	Mixed waste
	Glass Metals EE waste Masses and inorganic matter Plastics	Glass2300Metals2400EE waste3000Masses and inorganic matter6000Plastics7000

Each waste series is further sub-divided into waste codes, e.g. for various types of organic waste, various types of paper/corrugated cardboard/carton, various types of glass and so on.

The most commonly used fractions of non-hazardous waste are shown below. However, the classification into fractions can vary based on the space available on the installation.

Descrip	otion:	Waste code according to	
		the Norwegian standard:	
•	Organic/galley waste (food waste)	1111	
•	Cooking oil/fryer oil (MARPOL requirements)	1111	
•	Food-contaminated/combustible waste	9913	
•	Metal	1452	
•	Corrugated cardboard/paper	1299	
•	Plastics	1799	
•	Wooden waste	1149	

Comments about certain types of waste are given below under the following chapters:

- Non-hazardous waste
- Waste that may be hazardous
- Hazardous waste, including drilling-related waste

There is also a table with suggested conversions between NS9431 and discharge reporting.

2 Non-hazardous waste

2.1 WEEE (Waste of electrical and electronic equipment)

WEEE contains environmental pollutants and shall be sorted as a separate waste category. WEEE is disassembled ashore and components containing environmental pollutants will be handled through the hazardous waste system, while non-hazardous components will be recovered. It is important to pack and stow WEEE properly to prevent breakage, protect onshore personnel and prevent leakage of environmental pollutants.

- Batteries installed in equipment to be scrapped are defined as WEEE. There is no need to remove such batteries from the equipment before it is sent ashore.
- Smoke detectors shall be delivered as WEEE, and any radioactive nuclides shall be removed and properly handled by the WEEE facility ashore.
- Toner cartridges shall be sorted and preferably returned to the supplier through a return scheme but can alternatively be delivered as WEEE in separate packaging.

2.2 Metals

Metals shall be delivered as a separate waste fraction.

Rinsed glass and metal packaging (jars, tins and aluminium cans) can be sorted together as a waste fraction or delivered separately.

Soft drink cans/aluminium cans can be sorted as glass and metal packaging, or as a separate waste fraction. They shall not be discarded along with other metal waste.

Stainless steel, steel, titanium, etc., can also be sorted as separate waste fractions, but this must be determined by each company/installation based on generated volumes and storage space limitations. This may be more relevant for e.g. construction/demolition projects. Pure waste metals are more valuable for recovery than mixed metals, thus yielding a better price.

Process steel covers metal fractions that have been exposed to hydrocarbon-bearing flows of gas or liquids, and which therefore could potentially be contaminated with mercury and/or radioactive scale. Companies should consider delivering process steel separately to ensure prudent inspection and potential treatment in downstream value chains before resale for reuse, or re-smelting. This type of steel is also addressed in Chapters 5.4.6 and 5.5.3 of the Guidelines.

2.3 Cardboard/paper

Cardboard and paper shall preferably be delivered sorted in separate categories but can be mixed if small volumes are generated or there is limited space on board.

2.4 Plastics

Plastics come in a wide variety of qualities, which can prove to be a challenge for optimal plastic waste sorting offshore. It is common to use two plastic waste fractions: hard plastics and soft plastics. These two can be delivered separately or mixed together, depending on local conditions. The most important fraction of the two is soft plastics (plastic foil), which is more suitable for material recovery.

Plastic packaging that is contaminated with oil or other chemicals shall be delivered as hazardous waste. The waste codes listed in Appendix 2a are based on experience as far as the largest share of the packaging and can be used for all contaminated plastic packaging. As regards plastic packaging for paint, glue and lacquer, please see the separate paragraph below.

2.5 Residual waste

Residual/mixed waste is defined as the waste that is left after all recoverable fractions, hazardous waste and radioactive waste have been sorted out.

The recommendation is that companies split residual waste into two categories; compactable waste and bulky waste.

Compactable residual waste

The terms food-contaminated or combustible waste have previously been common. In practice, this type of waste is residual waste and shall be handled accordingly, both as regards sorting, treatment / recovery and target figures.

In short, compactable waste is what is left after best efforts to sort out fractions such as cardboard/paper, wood, plastics and other fractions that are suitable for material recovery (or for energy recovery if this is beneficial in relation to the handling cost).

Bulky waste/residual waste

Bulky waste is waste that is too large to compact. This typically covers larger objects.

If a company periodically produces large volumes of a type of waste that would normally be sorted as residual waste, they can enter into an agreement with a waste facility to keep this separate. For example, this would include furniture, insulation and gypsum.

2.6 Wooden waste

Uncontaminated wood shall be sorted and delivered for recovery. Wooden waste with **larger** metal fittings shall be sorted separately. Treated wood shall also be delivered separately and declared as hazardous waste. If a company has larger volumes of plywood and particleboard, they should contact a waste contractor, as in many instances, further processing of the wooden waste fraction does not allow for large volumes of contaminated wood.

2.7 Organic/galley waste

Organic waste (food leftovers) shall be ground up and discharged to sea offshore. Arrangements must be made to ensure that discharge below the sea surface is possible. Should offshore discharge not be possible, alternative handling must be organised with the waste facility onshore.

3 Waste that may be hazardous

3.1 Demolition waste

In certain instances, demolition waste can be delivered to a waste facility as mixed waste. The optimal approach is nevertheless to sort different materials, both for financial and resource utilisation reasons. Regardless, it is important to sort waste with hazardous properties and deliver this separately. This could be due to asbestos, ceramic fibre fire insulation, phthalates, waste containing chlorinated paraffin, waste containing PCBs, brominated flame retardants, etc.

3.2 Blasting sand/removing surface treatments

Blasting sand shall normally be delivered as hazardous waste. It shall be evaluated whether the blasting sand contains hazardous substances exceeding the limit values stipulated in a separate appendix to the hazardous waste chapter of the Waste Regulations. If it can be documented that the blasting sand does not contain hazardous substances, it can be delivered as non-hazardous waste.

Analyses and assessments of the results can be carried out by the waste contractor following reception if this has been agreed between the operator and waste contractor. The waste shall normally be documented when delivered to a waste facility.

If it can be documented in a different manner that the paint to be sandblasted does not contain hazardous substances, this can be used as a basis. For example, this could involve scraping off paint and analysing it before the surface treatment starts. Data sheets will not necessarily be sufficient in such situations, as substances with limit values related to hazardous waste classification (cf. Table 1 below) are not always listed in safety data sheets.

If the volume of waste is small enough to where it is not profitable to analyse the waste, the company can agree to deliver the waste as hazardous waste without analysis. The limit for this must be agreed with the waste facility.

Tables 1 and 2 below show a few relevant limit values from the Waste Regulations. Hazard statements are listed based on available information, e.g. from NFFA. Based on this, the company can determine whether or not the blasting sand is hazardous waste. Waste to be sent directly from the waste producer to landfill is subject to basic characterisation; see Chapter 5.8 of the Guidelines. If a waste facility mixes blasting sand from different waste producers, the waste facility will be responsible for carrying out the basic characterisation.

4 Hazardous waste

4.1 Batteries

All discarded batteries <u>shall</u> be collected under the dedicated return system, regardless of whether or not they contain hazardous substances, and shall not be mixed with other types of waste. The batteries shall be sorted into the following battery waste categories:

- *Lead-acid batteries, batteries containing cadmium, batteries containing mercury and lithium batteries* shall be delivered separately and declared as hazardous waste.
- Batteries that are dangerous goods shall be packed in UN-approved packaging.
- Companies are encouraged to sort all batteries according to chemistry, but unsorted small batteries can contain any chemicals, as long as they are packed according to the associated requirements.
- *Alkaline single-use batteries* (e.g. household batteries used in flashlights, radios, etc.) can, for practical reasons, be delivered along with other unsorted small batteries declared as hazardous waste.

The batteries should preferably be packaged in plastic packaging, packed in layers in a shock-absorbing material (e.g. vermiculite). Larger, leak-free batteries can be packed on pallets with collars. Styrofoam/corrugated cardboard or other insulating and shock-absorbing materials shall be used between the layers when the batteries are stacked on pallets. Lithium batteries shall not be stacked vertically (only one layer per pallet collar). As regards lithium batteries and larger batteries, the companies must attempt to ensure that the poles do not come in contact with each other (e.g. during taping). Damaged batteries with a risk of leaks shall be packed in packaging made of acid-proof steel/plastic.

Waste contractors can be contacted for advice and guidance on packing, labelling, transport and further processing of waste batteries.

4.2 Gases and pressure vessels

Pressure vessels shall be sent ashore separately as dangerous goods, secured in suitable racks or strapped in place on pallets. Insofar as possible, pressure vessels shall be returned to the supplier if they do not need to be discarded. Pressure vessels/gas bottles shall not be discarded in metal waste, even if they are no longer pressurised. If companies need to deliver other pressurised equipment as waste, this must be agreed with the waste facility.

Smaller gas bottles and cartridges can be shipped securely with shock-absorbing material in, e.g., barrels, crates or strapped in place on pallets with pallet collars. Shock-absorbing material shall be used to prevent movement and impacts during transport.

According to Sections 11-2 and 11-12 of the Waste Regulations, only discarded pressure vessels with hazardous content (cf. CLP) shall be declared as hazardous waste. If pressure vessels cannot be returned

to the supplier for re-filling, companies are recommended to declare the waste, regardless of the type of gas, due to the pressure risk. This recommendation is also in line with recommendations from NFFA.

Reimbursement schemes have been established based on Chapter 8 of the Waste Regulations for certain fluorinated gases and F-gases. Certain criteria will need to be satisfied in order to qualify for reimbursement.

The scheme may be implemented by declaring the waste to the waste contractor according to agreements established in advance. The companies must be able to document that the waste was purchased in Norway or that environmental fees have been paid. The scheme does not apply for imported gas. The waste shall be labelled with the type of gas, and there should be one declaration for each type of gas. Specific delivery criteria will be agreed with the waste contractor.

4.3 Paint, glue and lacquer

Paint, lacquer and glue can contain several different environmental pollutants and shall therefore be declared and classified for transport as hazardous waste (see table in Appendix 2a). The regulations distinguish between solvent-based and water-based paint.

Liquid paint shall normally be poured into barrels with bungholes. Solid, not-hardened paint waste (brushes, rollers, rags, caulking, etc.) shall normally be packaged in barrels with clamp tops.

Completely empty cans (only dry paint film) can be sorted as metal or plastic, respectively. If the can has a "toxic" hazard label, the paint shall nevertheless be declared as hazardous waste (solid paint waste). According to the regulations, the duty to declare does not distinguish between solids or liquids. It is therefore recommended that companies declare paint, paint residue and other paint waste as hazardous waste.

Hardeners require particular attention during disposal, since if they are mixed with liquid paint waste, this could cause the paint to solidify, which could create problems for final processing. Unmixed hardener residue shall therefore be sorted separately. Hardeners and caulking containing isocyanates and organic peroxides shall be declared separately under waste codes 7121 and 7123, respectively.

4.4 Oily rags and oily filters

In Appendix 2a, oily rags are classified according to the IMDG Code, with UN1856 and hazard class 4.2. The background for this classification is undesirable incidents while transporting oily rags at sea. However, oily rags are not covered by the regulations for onshore transport (ADR/RID). The classification at sea has also recently been assessed by industry organisations, as well as authorities, and this is the basis for the current guidance. The classification accounts for the fact that the rags can contain oils or other substances that can spontaneously ignite (for example solvents), i.e. pollutants other than pure oil. The rags can also be more flammable than the liquids they are contaminated with, since the oxygen exposure is greater due to a larger surface area. The likelihood of spontaneous ignition is relatively minor, particularly when the waste is transported in UN-approved packaging and classification takes place according to the IMDG Code. The sender is nevertheless responsible for classifying the waste for transport.

Oily absorbents, oil filters and filter cloth do not normally need to be classified for the transport, either at sea or onshore.

4.5 Drilling-related waste

4.5.1 Water-based drilling fluid waste

Water-based drilling fluid waste is normally classified as hazardous waste, with waste code 7144, due to the possible content of substances that are harmful to health or the environment. For example, the content of certain salts could mean that the waste constitutes a health hazard, but not an environmental hazard, while small volumes of oil pollution mean that the waste also constitutes an environmental hazard.

Since the content of various water-based drilling fluid chemicals may affect the downstream treatment solution, HSE data sheets with information about drilling fluid additives for the relevant water-based drilling fluid should be sent to the waste contractor prior to the drilling operation. The declaration form for each shipment should be labelled with the product name of the relevant drilling fluid.

Pure contaminated fractions with brine (saline completion fluid) and other saline fluids shall be kept separate to the greatest possible extent, since this will affect the further waste treatment. This shall be declared as 7097 (inorganic liquid waste) and be labelled brine.

Cuttings with water-based drilling fluid shall be classified with waste code 7145. Associated declarations should also be labelled with the name of the drilling fluid.

4.5.2 Waste following offshore slop treatment

If slop has been treated on a rig before it is shipped ashore, this shall be stated on the declaration form. Any chemical additives shall also be listed, and classification shall take place in line with Appendix 2a.

4.5.3 Liquid waste that is emitting or evaporating hazardous gas

Liquid waste in bulk that is emitting flammable gas with readings in LEL measurements and/or flash point measurements of 60°C shall be reported to the relevant vessel and waste facility well in advance. If the measured LEL values during transfer to the vessel or upon reception onshore exceed 25%, substance number 7025 shall normally be used, regardless of the flash point. LEL values exceeding 25% are considered to be high (cf. GOMO, Annex 10-F-1, Item 8.3). If the flash point is under 60°C, waste code 7025 shall normally be used. Other waste codes could also be relevant; what is most important is to provide information about the waste's properties. Relevant types of waste could be separator waste, waste from pigging and waste from starting up wells.

Waste that is emitting toxic gas, such as H_2S , shall be treated before it loaded onto a vessel. The H_2S value shall normally be 0 (cf. GOMO, Annex 10-F-2, analysis form). Slop treated for H_2S with chemicals shall be communicated to the waste facility, since this could affect how the waste is treated. This includes the use of biocides, H_2S scavenger or adding lime.

4.5.4 Waste containing glycol (MEG/TEG)

When waste containing glycol is delivered to a waste facility, it shall be accompanied with information about mixing ratios with other substances. Waste classification is described in Appendix 2a. Any PFAS or mercury content or risk of such content shall also be checked and communicated.

4.5.5 Oily liquid waste from rigs and from drilling with oil-based drilling fluids

Waste liquid from drilling should preferably be kept separate from rig slop (machine slop/motor slop). Rig slop shall be shipped ashore separately under waste code 7030. If rig slop and mud slop are mixed, code 7030 shall be used.

If the liquid drilling waste contains larger volumes of mud, e.g. more than 20% volume, waste code 7142 shall be used. Otherwise, waste code 7031 shall be used.

Drilling waste with oil-based drilling fluid shall be declared with the following waste codes:

- 7142 for drilling waste that can be pumped,
- 7143 for drilling waste that cannot be pumped.

In general, it is important to provide as much information as possible about the waste, for example if the waste could be contaminated with residue from testing fire-fighting foam systems or that the waste is

derived from a milling operation, from well operations (that could include clean-up pills with high saline concentrations and high surfactant concentrations), P&A jobs or it contains cement. If any fluorinated substances are suspected (PFAS and similar substances), this shall be communicated. If slop is mixed into cuttings, this shall also be communicated. Such information can be useful for the waste facility as regards choosing the right waste treatment. This information can be provided in the "More detailed description" field in the waste declaration, in the GOMO analysis form (can be relevant for both bulk and load carrier transport) or in other information enclosed with the declaration. Classifications that clarify the various properties are described in Appendix 2a.

A good flow of information between the waste producer and waste facility will help improve the process.

4.5.6 Tank cleaning waste

Waste generated in connection with cleaning tanks that have been used in offshore operations shall be classified with national waste codes based on the content and EWL codes such as tank cleaning waste (sub-chapter 1607); see Appendix 2b.

Cleaning tanks on vessels that are at quay or under way:

Waste generated in connection with cleaning tanks available to the oil company on supply vessels shall be delivered as hazardous waste, and the operator shall be listed as the waste producer for the tank washing waste.

Cleaning tanks on platforms/rigs:

For all practical purposes, when tanks are flushed on board platforms/rigs, the waste will be collected in a shared slop tank on the platform/rig before it is shipped ashore. It will generally not be possible to separate this offshore-generated tank washing waste from the rest of the drainage water and other drilling-related waste that ends up in this tank. In practice, this is the same type of waste and shall be classified as shown in Appendix 2a under the section on "Drilling-related waste" or "Oily waste". This will normally be 7031/130802 or 7144/165073.

Cleaning skips and transport tanks:

- Once skips are emptied of cuttings at hazardous waste treatment facilities, the load carriers are normally cleaned before they are returned. Water must normally be used to remove all the waste in the load carriers. The waste/treatment facility carrying out the cleaning job will be responsible for including the water used in the waste accounts.
- When there is a need to clean empty skips and transport tanks (such as chemical tanks), a declaration shall be established for the waste generated in this process. The company that delivers the tank for cleaning shall be listed as the waste producer.

5 Limit values for hazardous waste classification

Waste can be classified as hazardous waste based on its content of hazardous substances (see Chapter 5.4.1 of the Guidelines).

As regards waste that is not specifically hazardous waste according to EWL, which is the case for oily waste, this means that, in practice, the waste shall be classified as hazardous waste when the concentrations of hazardous substances exceed certain limit values. The limit values refer to different hazard statements for the various substances. The concentration for the substances is then compared with the limit value associated with these risks.

For certain hazard statements, the concentration of each individual substance shall be compared with the limit value. For other hazard statements, the substance concentrations shall be added together before being compared with the limit value. This includes substances classified as irritants (HP4), acutely toxic (HP 6) or corrosive (HP8).

The addition rule also applies for substances that are harmful to the environment. In such instances, waste that satisfies one of the following requirements shall be classified as ecotoxic hazardous waste (HP14):

 $[\Sigma c (H400) \ge 25\%]$

 $[100 \times \Sigma c \text{ (H410)} + 10 \times \Sigma c \text{ (H411)} + \Sigma c \text{ (H412)} \ge 25\%]$

 $[\Sigma \text{ c H410} + \Sigma \text{ c H411} + \Sigma \text{ c H412} + \Sigma \text{ c H413} \ge 25\%]$

Where Σ = the sum, and c = substance concentration in %.

For substances classified with hazard statement code H410, only substances with a concentration $\geq 0.1\%$ shall be included in the calculation.

The H-statements listed in the tables below are based on the most stringent limit for the most relevant compounds of each substance.

5.1 Waste containing heavy metals

Metals occur in various compounds, but analysis results are normally listed as the concentration of the actual metal and the chosen H-statement is based on the compounds most likely to occur. As regards assessing whether or not the waste shall be declared as hazardous waste, the comparison of the concentration against the limit value shall be based on the concentration of the actual metal, not the entire compound it may occur as.

Table 1. Percentage limits for a few relevant metallic compounds

Substance	Relevant hazard statement (H-statement)	Limit value
Lead compounds	H410	
		Total of substances with H410; limit value 0.25%
Copper compounds	H410	Total of substances with 11410, fillift value 0.25%
Zinc compounds	H410	
Mercury compounds	H410	Total of substances with H410; limit value 0.25%
	*	For substance alone 0.1%
Chrome compounds	H350	0.1%
Nickel compounds	Н350	0.1%
Arsenic compounds	H350	0.1%

Appendix 1 to Offshore Norge, Recommended Guidelines for Waste Management in the Offshore Industry

Cadmium compounds	H350	0.1%

^{*} 1000 mg/kg has traditionally been used as a limit value for mercury in assessments as to whether or not the waste shall be declared as hazardous waste. According to the regulations, hazard statement H410 with a limit value of 2500 mg/kg will be correct for relevant mercury compounds. Since 1000 mg/kg is a commonly used limit value, offshore operators are nevertheless recommended to continue using a limit value of 1000 mg/kg for mercury alone.

5.2 Organic environmental pollutants

In addition to the heavy metal concentrations mentioned in Table 1, a few organic compounds can also be relevant parameters for certain types of waste.

Table 2. Percentage limits for a few relevant organic compounds

Substance	Relevant hazard	ounds Limit value	
	statement (H-statement)		
TBT, organotin compounds	H410	Total of substances with H410; limit value 0.25%	
Brominated flame retardants	H410	Total of substances with H410; limit value 0.25%	
Polychlorinated biphenyls, ∑7PCB	(**)	Total concentration exceeding or equal to 0.001%	
Phthalates	H410	Total of substances with H410; limit value 0.25%	
PFOS	Н360	For substance alone 0.3%	
PFOA	Н360	For substance alone 0.3%	
PAH compounds:			
Naphthalene	410	Total of substances with H410; limit value 0.25%	
Acenaphthylene	330	For substance alone 0.1%	
Acenaphthene	410	Total of substances with H410; limit value 0.25%	
Fluorene	410	Total of substances with H410; limit value 0.25%	
Phenanthrene	410	Total of substances with H410; limit value 0.25%	
Anthracene	410	Total of substances with H410; limit value 0.25%	
Fluoranthene	410	Total of substances with H410; limit value 0.25%	
Pyrene	410	Total of substances with H410; limit value 0.25%	
Benzo(a)anthracene	350	For substance alone 0.1%	
	410	Total of substances with H410; limit value 0.25%	
Chrysene	350	For substance alone 0.1%	
	410	Total of substances with H410; limit value 0.25%	
Benzo(b)fluoranthene	350 410	For substance alone 0.1% Total of substances with H410; limit value 0.25%	
Benzo(k)fluoranthene	350	For substance alone 0.1%	
	410	Total of substances with H410; limit value 0.25%	
Benzo(a)pyrene	350	For substance alone 0.1%	
Dil. (1) d	410	Total of substances with H410; limit value 0.25%	
Dibenzo(ah)anthracene	350 410	For substance alone 0.1% Total of substances with H410; limit value 0.25%	
Benzo(ghi)perylene	410	Total of substances with H410; limit value 0.25% Total of substances with H410; limit value 0.25%	
Indeno(1,2,3-cd)pyrene	351	For substance alone 1%	
indeno(1,2,3-cd)pyrene	551	FOI SUBStance alone 170	
BTEX:			
Benzene	350	Concentration exceeding 0.1%	
Toluene	361	Concentration exceeding 3%	
Ethylbenzene	373	Concentration exceeding 10%	
Xylene	332	Concentration exceeding 22.5%	
Total of benzene, ethylbenzene and toluene	304	Total of substances with H304; limit value 10%	
TOTACHE			

Comment on limit value for PCBs:

Polychlorinated biphenyls (PCBs) are synthetic substances that consist of 209 different PCB isomers. Since it would be quite extensive to analyse all of them, a frequent practice is to analyse the 7 most common isomers; PCB 28, PCB 52, PCB 101, PCB 118, PCB 138, PCB 153 and PCB 180. The ratio between total PCB and Σ 7PCB may differ from product to product but is very frequently between 3 and 8.2. A conversion factor of 5 is roughly correct, but this is not explicitly mentioned in any regulations, which is why the limit value for Σ 7PCB is set at 0.001%.

6 Examples of waste that is NOT hazardous waste

a. Examples of waste that shall be sorted as non-hazardous waste

Waste type	Comments	Fraction
	The can must be empty, the paint completely dry and there can only be a hardened paint film.	Metal/plastic
	The packaging has been cleaned and free of oil/chemical residue	Plastic/metal

b. Examples of waste that shall not be declared as hazardous waste, but which are subject to packaging and waybill requirements:

Waste type	Comments
Infectious waste (from hospital)	Ship in separate UN-approved packaging. Dangerous goods transport document.
Radioactive sources	Return in original UN-approved packaging. Dangerous goods transport document.
Waste consisting of NORM- contaminated process steel	When shipping waste consisting of NORM-contaminated equipment/pipes is sent ashore, companies shall ensure that no radiation is emitted during transport and handling.
Waste consisting of mercury- contaminated process steel	When shipping waste consisting of mercury-contaminated equipment/pipes is sent ashore, companies shall ensure that no mercury vapour is emitted during transport and handling.
Pyrotechnical equipment (flares, emergency candles, flare guns)	Ship in UN-approved packaging, preferably to equipment supplier. Dangerous goods transport document. Explosives are subject to the Waste Regulations' chapter on hazardous waste but shall not be declared as hazardous waste.
Medical waste	Ship in separate container to pharmacy according to the operator's agreement.
Pressure vessels being returned to supplier for re-filling	Send ashore to equipment supplier in separate racks or strapped down to pallets, with required dangerous goods documentation.

7 Conversion table

Chapter 9.1.2 of Offshore Norge Guidelines 044 – "Recommended guidelines for discharge and emission reporting" – provides guidance on how to report non-hazardous waste to the authorities on an annual basis. The table below provides suggested conversions between the setup in Guidelines 044 and waste codes according to the Norwegian standard for classification of waste (NS9431). Please also note that divisions in NS9431 other than the table below may also be relevant.

^{**} Waste Regulations, Appendix 2, No. 2.

Category (cf. 044)	Definition (cf. 044)	Suggested waste code cf. NS9431	NS9431 description
Food- contaminated waste	Waste contaminated with food particles and other debris that can cause odours and cuts.	9913	Unsorted combustible waste
Wet organic waste	Food and other organic waste	1111	Kitchen and food waste from institutional and private households
Paper	All ordinary paper such as newspapers, magazines, office paper, etc.	1299	Mixed paper, corrugated cardboard and cartons
Cardboard (brown paper)	Corrugated cardboard and other brown paper.	1221	Brown paper
Wooden waste	Defective pallets, boards, miscellaneous wooden waste.	1149	Mixed processed wood
Glass	Rinsed (not washed) clear and coloured glass.	1322	Mixed glass packaging with metal
Plastics	Plastic jugs, buckets, foil, plastic sacks and other plastic packaging	1799	Mixed plastics, mixed fractions
EE waste	All equipment that needs electric power or batteries to work. Cables and wires.	1599	Mixed EE waste
Residual waste	What is left once recoverable fractions and special waste are sorted out.	9912	Mixed non-hazardous waste
Metals	Metal packaging, pipes, scrap metal, wire rope, etc.	1452	Mixed metals
Blasting sand	Waste from sandblasting that does not contain hazardous substances	1672	Blasting sand
Explosives	Emergency flares and other explosives returned to shore		
Miscellaneous	Waste that cannot be categorised into the fractions above.		