SAFETY DATA SHEET

Revision: 3.0 Date: 14 April 2021

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

Naphtha

SECTION 1: IDENTIFICATION

Product identifier

Product name	Naphtha
Synonym(s)	Light Naphtha, Japan Open Spec Bonded Naphtha, SNG Naphtha, Light Cat Naphtha, Sweet Virgin Naphtha (SVN), Debutanized Naphtha, Atmospheric Naphtha (DAN), HCU Light Naphtha, Light CR Gasoline, Full Range Cracked Naphtha, Full Range Hydrocracked Naphtha, Full Range Reformed Naphtha, Light Chemical Treated Naphtha, Light Cracked Naphtha, Light Hydrocracked Naphtha, Light Hydrotreated Naphtha, Aviation Alkylate Naphtha
CAS Number	8030-30-6

Other means of identification None

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

Identified Use(s)	Fuel Component, Refinery Intermediate Stream
Uses advised against	Anything other than the above.

Details of the supplier of the safety data sheet

Supplier	Vitol Inc. 2925 Richmond Ave, 11th Floor Houston, TX 77098
Telephone	(713) 230-1000
Fax	713-230-1185
E-mail (competent person)	SDSHOU@vitol.com

Emergency telephone number

Emergency Phone No.	Chemtrec: US/Canada: 1-800-424-9300 (24h) Mexico: 800 681 9531 (24h)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture in accordance with paragraph (d) of 29 CFR 1910.1200

Physical hazards	Flammable Liquid, Category 2
Health hazards	Aspiration hazard, Category 1 Skin Corrosion/Irritation, Category 2 Eye Irritation, Category 2B Specific target organ toxicity — single exposure, Category 3 (Narcotic effects) Carcinogen, Category 1B Germ cell mutagenicity, Category 1B Reproductive toxicity, Category 2 Specific target organ toxicity — repeated exposure, Category 2
Environmental hazards	Hazardous to the aquatic environment, Acute, Category 2 Hazardous to the aquatic environment, Chronic, Category 2

Label elements

Hazard Pictogram(s)

Signal Word(s) DANGER

Hazard Statement(s)	Highly flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes skin irritation. Causes eye irritation. May cause genetic defects. May cause cancer. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.
Precautionary Statement(s)	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Ground and bond container and receiving equipment. Use non-sparking tools. Take precautionary measures against static discharge. Wash hands and exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF exposed or concerned: Get medical advice/attention. Store locked up. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Dispose of contents in accordance with local, state or national legislation.
Other hazards	The vapour is heavier than air; beware of pits and confined spaces. May cause irritation to eyes and air passages. Product may release Hydrogen Sulphide: A specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases should be made to help determine controls appropriate to local circumstances.
Percent of the mixture consists of ingredient(s) of unknown acute toxicity:	0% of the mixture consists of ingredients of unknown acute inhalated toxicity. 0% of the mixture consists of ingredients of unknown acute oral toxicity. 0% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Classification: OSHA HCS (29 CFR 1910.1200)

Chemical identity of the substance	%W/W	CAS No.	EC No.
Naphtha; Low boiling point naphtha	100	8030-30-6	232-443-2

Hazardous constituents

Chemical identity of the substance	%W/W	CAS No.	EC No.
n-hexane	25 - 35	110-54-3	203-777-6
Xylene (o, m, p isomers)	25 - 35	1330-20-7	215-535-7
Toluene	15 - 20	108-88-3	203-625-9
Cyclohexane	15 - 20	110-82-7	203-806-2
Pentane	15 - 20	109-66-0	203-692-4
Heptane	12.5 - 15	142-82-5	205-563-8
Ethylbenzene	5 - 7	100-41-4	202-849-4

Benzene	3 - 5	71-43-2	200-753-7
1,2,4-trimethylbenzene	2 - 3	95-63-6	202-436-9
Sulfur	0 - 1.5	7704-34-9	231-722-6

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Self-protection of the first aider: Avoid all contact. Do not breathe vapour. Eliminate sources of ignition. If it is suspected that fumes are still present, the responder should wear an appropriate mask or self-contained breathing apparatus. Drench contaminated clothing with water before removing to avoid risk of sparks from static electricity. Do not use mouth-to-mouth resuscitation. No action should be taken involving personal risk. Wear appropriate personal protective equipment, avoid direct contact. Avoid exposure during pregnancy. Do not ingest. If swallowed then seek immediate medical assistance.

Inhalation: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Apply artificial respiration only if patient is not breathing but do not use mouth to mouth resuscitation. Get medical advice/attention if you feel unwell.

Skin contact: IF ON SKIN (or hair): Remove contaminated clothing immediately and wash affected skin with plenty of water or soap and water. If irritation persists, get medical attention.

Eye contact: IF IN EYES: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention. Immediately call a POISON CENTER/doctor.

Ingestion: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. If unconscious, place in recovery position and get medical attention immediately. Wash out mouth with water and give small quantities of water to drink. Do not give anything by mouth to an unconscious person. Get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Do not wait for symptoms to appear.

Most important symptoms and effects, both acute and delayed: May be fatal if swallowed and enters airways. Causes skin irritation. Causes eye irritation. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. May cause drowsiness or dizziness.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

Notes to a physician: IF IN EYES: Treatment by an ophthalmologist due to possible caustic burn of the eyes may be required.
IF INHALED: If unconscious, place in recovery position and get medical attention immediately. Administer oxygen if available and artificial respiration if necessary.
IF SWALLOWED: Do not induce vomiting because of risk of aspiration into the lungs. If aspiration is suspected obtain immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Extinguish with sand or dry chemical. Foam, Carbon dioxide, Water fog or dry powder

Unsuitable extinguishing media: Do not use water jet. Direct water jet may spread the fire.

Special hazards arising from the substance or mixture: Highly flammable liquid and vapour. Will float and can be reignited on surface water. A mixture of solid and liquid particulates and gases including unidentified organic and inorganic compounds. May form explosive mixture with air. Prevent liquid entering sewers, basements and any watercourses. Vapours are heavier than air and may travel considerable distances to a source of ignition and

	flashback. If sulphur compounds are present in appreciable amounts, combustion products may include also H2S and SOx (sulfur oxides) or sulfuric acid.
Advice for firefighters	Fight fire with normal precautions from a reasonable distance. Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Keep containers cool by spraying with water if exposed to fire. Avoid release to the environment. Dike fire control water for later disposal.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Caution - spillages may be slippery. Ensure operatives are trained to minimise exposures. Ensure suitable personal protection during removal of spillages. Eliminate sources of ignition. Shut off leaks if without risk. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid all contact. Do not breathe vapour. Ensure adequate ventilation. Do not ingest. If swallowed then seek immediate medical assistance. Do not use sparking tools. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Avoid exposure during pregnancy.
Methods and material for containment and cleaning up	Provided it is safe to do so, isolate the source of the leak. Use non-sparking equipment when picking up flammable spill. The vapour is heavier than air; beware of pits and confined spaces. Ensure that the equipment is adequately grounded. Allow small spillages to evaporate provided there is adequate ventilation. Wear flame-resistant antistatic protective clothing. Wear chemical protection suit and breathing apparatus.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling	Obtain special instructions before use. Keep away from sources of ignition - No smoking. Use only outdoors or in a well-ventilated area. Prevent vapour build up by providing adequate ventilation during and after use. May form explosive mixtures with air. Take action to prevent static discharges. Use non-sparking tools. All parts of the plant and equipment should be electrically bonded together and connected to earth. Electrical continuity should be checked at regular intervals. Antistatic clothing and footwear should be used. The vapour is heavier than air; beware of pits and confined spaces. Avoid all contact with substance. Do not ingest. If swallowed then seek immediate medical assistance. Do not breathe vapour. See Section: 8. Keep good industrial hygiene. Wash hands thoroughly after handling. Contaminated clothing should be thoroughly cleaned.
H2S Warning:	Product may release Hydrogen Sulphide: A specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases should be made to help determine controls appropriate to local circumstances. These controls may include: Segregation of areas, Access only to authorised persons, Permit to work systems, Confined space working procedures, Area H2S alarms, Personal H2S alarms, Personal escape sets, H2S awareness training.
Conditions for safe storage, including any incompatibilities	Light hydrocarbon vapours can build up in the headspace of containers. These can cause flammability / explosion hazards. Bund storage facilities to prevent soil and water pollution in the event of spillage. Keep only in original packaging. Keep containers properly sealed when not in use. Protect from sunlight. Containers of this material may be hazardous when empty since they retain product residue. Empty container may contain product residue which may result in flammable or explosive vapours inside the container.
Storage temperature	Stable at ambient temperatures.
Incompatible materials	Oxidizing agents, Strong Acids and Alkalis.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Naphtha	8030-30-6	100	400			OSHA
		100	400			NIOSH
Oil mist (mineral)	8012-95-1	-	5	-	10	NIOSH
		-	5	-	-	OSHA
		-	-	-	5	ACGIH
Benzene	71-43-2	0.1	0.32	1^	3.2	NIOSH
		1	-	5	-	OSHA
		0.5	-	2.5	-	ACGIH
n-Hexane	110-54-3	50	180	-	-	NIOSH
		50	1800	-	-	OSHA
		50	-	-	-	ACGIH, Sk
Cyclohexane	110-82-7	300	1050	-	-	NIOSH
		300	1050	-	-	OSHA
		100	-	-	-	ACGIH
Ethylbenzene	100-41-4	100	435	125*	545*	NIOSH
		100	435	-	-	OSHA
		20	-	-	-	ACGIH
Xylene	1330-20-7	100	435	150*	655	NIOSH
		100	435	-	-	OSHA
		100	-	150	-	ACGIH, A4
n-Heptane	142-82-5	85	350	440*	1800*	NIOSH
		5000	2000	-	-	OSHA
		400		500		ACGIH
Toluene	108-88-3	100	375	150	560	NIOSH
		-	-	300	-	OSHA
		20	-	-	-	ACGIH, A4
Pentane	109-66-0	1000	-	-	-	ACGIH

Note: OSHA PELs 1910.1000 TABLE Z-1/2/3 / NIOSH RELs / ACGIH TLVs
^Ceiling limit value (15 min)
*NIOSH 15 minute average values
A4: Not Classifiable as a Human Carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of the lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories.
The other components listed in Section 3 do not have occupational exposure limits.

Biological exposure indicies

SUBSTANCE	CAS No.	Determinant	Biological Exposure Indices	Sampling Time	Note
Benzene	71-43-2	S-Phenylmercapturic acid in urine t,t-Muconic acid in urine	25 µg/g Creatinine 500 µg/g Creatinine	End of shift End of shift	B B
Toluene	108-88-3	Toluene in blood Toluene in urine o-Cresol in urine with hydrolosis	0.02 mg/l 0.03 mg/l 0.3 mg/g creatinine	Prior to last shift of workweek End of shift End of shift	- - B
Xylene, o-,m-,p- or mixed isomers	1330-20-7	Methylhippuric acids in urine.	1.5 g/g Creatinine	End of shift	-
Ethylbenzene	100-41-4	Sum of mandelic acid and phenylglyoxylic acid in urine	0.15 g/g Creatinine	End of shift	Ns
n-Hexane	110-54-3	2,5-Hexanedione in urine	0,5 mg/L	End of shift	-

Source: 2019 ACGIH Biological Exposure Indicies (BEIs)

Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction if dusts, fumes or vapours are likely to be evolved. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources. Guarantee that the eye flushing systems and safety showers are located close to the working place.

Individual protection measures, such as personal protective equipment	Fuels are typically used, transferred and transported in closed systems. If exposure is likely (i.e. during sampling) the following advice may be appropriate. Keep good industrial hygiene. Always wash hands before smoking, eating and drinking. Do not eat, drink or smoke at the work place. Avoid all contact. Do not breathe vapour. Avoid exposure during pregnancy.

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.

Eye/ face protection 	Use eye protection according to EN 166, designed to protect against liquid splashes.
Skin protection 	**Hand protection:** Wear impervious gloves (recommended: EN374). Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Protective index 6, corresponding > 480 minutes of permeation time according to EN 374. Efficiency of at least 80%). Recommended: Nitrile rubber; Flouroelastomer (Minimum thickness – 0.5 – 0.65mm). **Body protection: Wear anti-static clothing and shoes.** Small scale: Wear suitable coveralls to prevent exposure to the skin. Large scale: Chemical protection suit.
Respiratory protection 	When the product is heated / In case of inadequate ventilation wear respiratory protection. The use of a high efficiency filter (recommended: EN143) is recommended. Filter type A1. Closed system(s): Not normally required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid, colorless to light yellow
Odour	Characteristic
Odour threshold	not determined
pH	not applicable
Melting point/freezing point	not determined
Initial boiling point and boiling range	26.7 – 148.9 °C
Flash point	-21.7 °C
Evaporation rate	not determined
Flammability (solid, gas)	not applicable
Upper/lower flammability or explosive limits	Upper limit: 6.9 % (V) Lower limit; 1.2% (V)
Vapour pressure	758 - 896 hPa (20 °C)
Vapour density	3.5 (Air = 1)
Relative density	0.77 (Water = 1)
Solubility(ies)	Water: Negligible
Partition coefficient: n-octanol/water	not determined
Auto-ignition temperature	225 °C
Decomposition temperature	not determined
Viscosity	Kinematic viscosity: 0.4 – 0.9 mm²/s (40 °C)

Other information

Specific Gravity	0.77 (Water=1) (60°F)
Percent volatile	100 %

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions. Reacts with - Strong oxidising agents
Chemical stability	Stable under normal conditions. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	Highly flammable liquid and vapour. May form explosive mixture with air. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback. Product may release Hydrogen Sulphide.
Conditions to avoid	Elevated temperature. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from direct sunlight.
Incompatible materials	Keep away from oxidising agents. Strong Acids and Alkalis.
Hazardous decomposition products	A mixture of solid and liquid particulates and gases including unidentified organic and inorganic compounds. Decomposes in a fire giving off toxic fumes: COx, H2S, SOx,

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity - Ingestion	Based upon the available data, the classification criteria are not met. Calculated acute toxicity estimate (ATE) >2,000 mg/kg.
Acute toxicity - Inhalation	Based upon the available data, the classification criteria are not met. Calculated acute toxicity estimate (ATE) > 5 mg/L (Vapour)
Acute toxicity - Skin contact	Based upon the available data, the classification criteria are not met. Calculated acute toxicity estimate (ATE) >2,000 mg/kg.
Skin corrosion/irritation	Skin Corrosion/Irritation, Category 2: Causes skin irritation. Irritating to skin. (rabbit) (OECD 404)
Serious eye damage/irritation	Eye Irritation, Category 2B: Causes eye irritation. Irritant to eyes (rabbit)
Respiratory or skin sensitisation	Based upon the available data, the classification criteria are not met.
Germ cell mutagenicity	Germ cell mutagenicity, Category 1B: May cause genetic defects. EU Harmonised Classification >1% Benzene
Carcinogenicity	Carcinogen, Category 1A: May cause cancer. EU Harmonised Classification >1% Benzene
Reproductive toxicity	Reproductive toxicity, Category 2: Suspected of damaging fertility or the unborn child. >1% Toluene
STOT - single exposure	Specific target organ toxicity — single exposure, Category 3 (Narcotic effects): May cause drowsiness or dizziness.
STOT - repeated exposure	Specific target organ toxicity — repeated exposure, Category 2: May cause damage to organs through prolonged or repeated exposure. Oral: No data Inhalation: 1, 402 mg/m³ (OECD 453) Dermal: 375 mg/kg bw/day (mouse) (OECD 453)
Aspiration hazard	Aspiration hazard, Category 1: May be fatal if swallowed and enters airways. Kinematic viscosity: 0.4 – 0.9 mm²/s Source: ECHA registration dossier, Naphtha; Low boiling point naphtha (CAS No.: 8030-30-6)

Information on likely routes of exposure

Inhalation	Possible – accidental exposure
Ingestion	Possible – accidental exposure
Skin contact	Possible – accidental exposure
Eye contact	Unlikely – accidental exposure

Early onset symptoms related to exposure	May be fatal if swallowed and enters airways. Causes skin irritation. Causes eye irritation.
Delayed health effects from exposure	May cause genetic defects. May cause cancer. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure.

Exposure levels and health effects	See Section: 8
Interactive effects	None Known
Other information	
OSHA Designated Carcinogen	Not listed
NIOSH Occupational Carcinogen List	Not listed
NTP Report on Carcinogens	Not listed
IARC Monographs	Not listed

SECTION 12: ECOLOGICAL INFORMATION

Toxicity	Hazardous to the aquatic environment, Acute, Category 2: Toxic to aquatic life Hazardous to the aquatic environment, Chronic, Category 2: Toxic to aquatic life with long lasting effects. LL50: 8. mg/L (Pimephales promelas (fathead minnow), 96 h, EPA 66013-75-009) EL50: 4,5 mg/L (Daphnia magna, 48 h, OECD 202) EL50: 3,1 mg/L (Pseudokirchneriella subcapitata, 72 h, OECD 201) NOELR: 0,5 mg/L (Pseudokirchneriella subcapitata, 72 h, OECD 201)
Persistence and degradability	Substance is complex UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance
Bioaccumulative potential	Substance is complex UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance
Mobility in soil	Substance is complex UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance
Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods	Dispose of this material and its container as hazardous waste. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Disposal should be in accordance with local, state or national legislation. Containers of this material may be hazardous when empty since they retain product residue.

SECTION 14: TRANSPORT INFORMATION

	Road/rail (ADR/RID)	**Sea transport (IMDG)**	**Air (ICAO/IATA)**
UN number	UN1268	UN1268	UN1268
UN proper shipping name	PETROLEUM DISTILLATES, N.O.,S. (Naphtha; Low boiling point naphtha)	PETROLEUM DISTILLATES, N.O.,S. (Naphtha; Low boiling point naphtha)	PETROLEUM DISTILLATES, N.O.,S. (Naphtha; Low boiling point naphtha)
Transport hazard class(es)	3	3	3
Packing group	II	II	II
Environmental hazards	Environmentally hazardous substance	Classified as a Marine Pollutant.	Environmentally hazardous substance
Special precautions for user	See section 2		
Transport in bulk according to Annex II of Marpol and the IBC Code	No information available.		

SECTION 15: REGULATORY INFORMATION

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

US Federal Regulations	
TSCA Inventory	Listed
TSCA Chemical Data Reporting (CDR) Rule	No (partially exempt from reporting under CDR)
NIOSH Occupational Carcinogen List	Not listed

EPCRA Section 313	Not listed
CWA 307- Toxic	Not listed
CERCLA - Hazardous Substances	Not listed
CWA Section 311 List of Hazardous Substances	Not listed

US State Regulations

Proposition 65 (California)	Not listed
Massachusetts, New Jersey, Pennsylvania, Rhode Island- State Right to Know Lists	Listed
New York -State Right to Know Lists	Not listed
Minnesota - State Right to Know Lists	Listed
Massachusetts – Toxic Use reduction act	Not listed

Non-Regional

IARC Monographs	Mineral oils, untreated or midly treated: Group 1 Mineral oils, highly-refined: Group 3

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

Version	3
Revision Date	14 April 2021
Date of First Issue	Not available. 2ND ISSUE RELEASED JUNE, 15 2015

This Safety Data Sheet was prepared in accordance with US Regulation OSHA HCS (29 CFR 1910.1200)

References:

Existing Safety Data Sheet (SDS),
EU Harmonised Classification(s) for Naphtha; Low boiling point naphtha (CAS No.: 8030-30-6)
Existing ECHA registration(s) for Naphtha; Low boiling point naphtha (CAS No.: 8030-30-6)

Legend

ADR/RID	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road / RID: Regulations concerning the international railway transport of dangerous goods
BCF	Bioconcentration factor (BCF)
CAS	CAS: Chemical Abstracts Service
DNEL	Derived no effect level
EC	EC: European Community
EU	European Union
IATA	IATA: International Air Transport Association
ICAO/IATA	ICAO: International Civil Aviation Organization / IATA: International Air Transport Association
IMDG	IMDG: International Maritime Dangerous Goods
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
UN	United Nations
vPvB	very Persistent and very Bioaccumulative

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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