

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier		
Product name	QUARTZ TONER	
1.2. Relevant identified uses of the substance	or mixture and uses advised against	
Intended use	Enhancer	
1.3. Details of the supplier of the safety data sl	heet	
Name Full address District and Country e-mail address of the competent person	Tenax Spa Via I Maggio, 226 37020 Volargne Italy Tel. +39 045 6887593 Fax +39 045 6862456	(VR)
responsible for the Safety Data Sheet	msds@tenax.it	
Product distribution by		xecutive Center Drive - Unit 400 - Charlotte NC : (800) 341 0432 - Fax +1 704-583-3166 -
1.4. Emergency telephone number		

For urgent inquiries refer to

1-800-5355053 (1-352-323-3500 international)

Flammable liquid and vapour.

May be fatal if swallowed and enters airways. May cause drowsiness or dizziness.

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement. Flammable liquid, category 3 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3

Hazard pictograms:



Signal words:

Hazard statements: H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.

Precautionary statements:

Prevention:	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground / bond container and receiving equipment.
P241	Use explosion-proof electrical / ventilating / lighting / / equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves / eye protection / face protection.
Response:	



Revision nr.2 Dated 7/7/2015 Printed on 10/2/2015 Page n. 2 / 10

SECTION 2. Hazards identification.

P303+P361+P353 P304+P340 P331 P370+P378	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower. IF INHALED: remove person to fresh air and keep comfortable for breathing. Do NOT induce vomiting. In case of fire: use to extinguish.						
Storage: P403+P233 P403+P235 P405	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.						
Disposal: P501	Dispose of contents / container according to applicable law.						
2.2. Other hazards.							
Environmental classificat	tion as for Reg. (EU) 1272/2008 (CLP):						
The product is classified	as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).						
Classification and Hazard Hazardous to the aquatic env	d Statement. vironment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.						
Hazard statements: H412	Harmful to aquatic life with long lasting effects.						
Precautionary statements Prevention: P273	S: Avoid release to the environment.						
Response:							
Storage:	Storage:						
Disposal: P501	 Dispose of contents / container according to applicable law.						
Additional hazards. Repeated exposure may ca	ause skin dryness or cracking.						
Additional hazards. Repeated exposure may ca	ause skin dryness or cracking.						
SECTION 3. Composition/informati	ion on ingradients						
3.1. Substances.							
Information not relevant.							
3.2. Mixtures.							
Contains:							
Identification.	Conc. %. Classification:						
NAPHTA (PETROL.) HYDROTR	EATED HEAVY						
CAS. 64742-48-9	30 - 50 Aspiration hazard, category 1 H304, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, chronic toxicity, category 3 H412						
N-BUTYL ACETATE CAS. 123-86-4	5 - 10 Flammable liquid, category 3 H226, Specific target organ toxicity - single exposure, category 3 H336						
Note: Upper limit is not in	ncluded into the range.						

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

For symptoms and effects caused by the contained substances, see chap. 11.



Revision nr.2 Dated 7/7/2015 Printed on 10/2/2015 Page n. 3 / 10

SECTION 4. First aid measures.

4.3. Indication of any immediate medical attention and special treatment needed. Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations. SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.



Revision nr.2 Dated 7/7/2015 Printed on 10/2/2015 Page n. 4 / 10

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

			NAPHTA	(PETROL.) H	IYDROTRE	ATED HEAVY	,	
Threshold Limit V	alue.							
Туре	Country	TWA/8h		STEL/15	min			
		mg/m3	ppm	mg/m3	ppm			
TI V-ACGIH	-	1595	0	0	0			

					N	-BUT	YL ACETATI	E	
Thre	shold Limit Val	ue.							
Т	уре	Country	TWA/8h		S	TEL/1	5min		
			mg/m3	ppm	m	g/m3	ppm		
Т	LV-ACGIH	-	713	150	9	50	200		
C	OSHA	USA	710	150					
C	AL/OSHA	USA	710	150	9	50	200		
N	NOSH	USA	710	150	9	50	200		

TLV of solvent mixture: 713 mg/m3.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations. HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion. EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134. ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.



Revision nr.2 Dated 7/7/2015 Printed on 10/2/2015 Page n. 5 / 10

SECTION 9. Physical and chemical properties.

0.4 Information on boards		- 1	
9.1. Information on basic	pnysical and	cnemical	properties.

Appearance	liquid
Colour	colourless
Odour	typical
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.
Flash point.	23 ≤ T ≤ 60 °C.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	0.880 Kg/l
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.
9.2. Other information.	
VOC :	50,00 % - 440,00 g/litre.
VOC (volatile carbon) :	41,22 % - 362,71 g/litre.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

The vapours may also form explosive mixtures with the air.

N-BUTYL ACETATE: risk of explosion on contact with: strong oxidising agents. Can react dangerously with alkaline hydroxides, potassium tert-butoxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

N-BUTYL ACETATE: avoid exposure to moisture, sources of heat and naked flames.

10.5. Incompatible materials.

N-BUTYL ACETATE: water, nitrates, strong oxidising agents, acids and alkalis and potassium tert-butoxide.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

The introduction of even small quantities of this liquid into the respiratory system in case of ingestion or vomit may cause bronchopneumonia and pulmonary edema.

This product contains highly volatile substances, which may cause serious depression of the central nervous system (CNS) and have negative effects, such as drowsiness, dizziness, slow reflexes, narcosis.

This product may have a degreasing action on the skin, producing dryness and chapped skin after repeated exposure.



Revision nr.2 Dated 7/7/2015 Printed on 10/2/2015 Page n. 6 / 10

SECTION 11. Toxicological information. /

N-BUTYL ACETATE:in humans the substance's vapours cause irritation to the eues and nose. In the event of repeated exposure, there is skin irritation, dermatosis (with driness and flaking of the skin) and keratitis.

N-BUTYL ACETATE

LD50 (Oral).	
LD50 (Dermal).	
LC50 (Inhalation).	

> 6400 mg/kg Rat> 5000 mg/kg Rabbit21.1 mg/l/4h Rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Information not available.

12.2. Persistence and degradability.

N-BUTYL ACETATE Solubility in water.

mg/l 1000 - 10000

12.3. Bioaccumulative potential.

2.3
15.3

12.4. Mobility in soil.

N-BUTYL ACETATE	
Partition coefficient: soil/water.	< 3

12.5. Results of PBT and vPvB assessment. Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to dangerous goods transport regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1993

14.2. UN proper shipping name.



Revision nr.2 Dated 7/7/2015 Printed on 10/2/2015 Page n. 7 / 10

SECTION 14. Transport information.

14.3. Transport hazard class(es).

ADR / RID:	Class: 3	Label: 3
IMDG:	Class: 3	Label: 3
IATA:	Class: 3	Label: 3



14.4. Packing group.

ADR / RID, IMDG, IATA:

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID: IMDG: IATA: HIN - Kemler: 30 Special Provision: 640E EMS: F-E, <u>S-E</u> Cargo: Pass.: Special Instructions: Limited Quantities 5 L

Limited Quantities 5 L Maximum quantity: 220 L Maximum quantity: 60 L A3 Tunnel restriction code (D/E)

Packaging instructions: 366 Packaging instructions: 355

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

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

U.S. Federal Regulations.

TSCA: All components are listed on TSCA Inventory.

Clean Air Act Section 112(b): No component(s) listed.

Clean Air Act Section 602 Class I Substances: No component(s) listed.

Clean Air Act Section 602 Class II Substances: No component(s) listed.

Clean Water Act – Priority Pollutants: No component(s) listed.

Clean Water Act – Toxic Pollutants: No component(s) listed.

DEA List I Chemicals (Precursor Chemicals): No component(s) listed.

DEA List II Chemicals (Essential Chemicals): No component(s) listed.

EPA List of Lists:



Revision nr.2 Dated 7/7/2015 Printed on 10/2/2015 Page n. 8 / 10

SECTION 15. Regulatory information. / >>

313 Category Code: No component(s) listed.

EPCRA 302 EHS TPQ: No component(s) listed.

EPCRA 304 EHS RQ: No component(s) listed.

CERCLA RQ: 123-86-4 N-BUTYL ACETATE

EPCRA 313 TRI: No component(s) listed.

RCRA Code: No component(s) listed.

CAA 112 (r) RMP TQ: No component(s) listed.

State Regulations.

Massachussetts: N-BUTYL ACETATE 123-86-4

Minnesota:	
123-86-4	N-BUTYL ACETATE
New Jersey:	
123-86-4	N-BUTYL ACETATE

New York: 123-86-4 N-BUTYL ACETATE

Pennsylvania: 123-86-4	N-BUTYL ACETATE
California:	

123-86-4 N-BUTYL ACETATE

Proposition 65:

This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012: None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention: None.

Candadian WHMIS. Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 3 Asp. Tox. 1 STOT SE 3	Flammable liquid, category 3 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.



Revision nr.2 Dated 7/7/2015 Printed on 10/2/2015 Page n. 9 / 10

SECTION 16. Other information.

LEGEND:

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh Registry of Toxic Effects of Chemical Substances
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597

- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.



Revision nr.2 Dated 7/7/2015 Printed on 10/2/2015 Page n. 10 / 10

SECTION 16. Other information.

This document must not be regarded as a guarantee on any specific product property.

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The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review: The following sections were modified: 09.