Safety Data Sheet

Product Name: Human TNF-alpha Quantikine HS ELISA

Reviewed on: 9 May 2014

1. Identification of Substance:

- **Other means of identification: Catalog Number: HSTA00D, PHSTA00D, SSTA00D**
  Components: Microplate, Standard (contains ProClin 300), Conjugate (contains **0.25% Sodium azide** and ProClin 300), Assay Diluent (contains ProClin 300), Calibrator Diluent (contains ProClin 300), Wash Buffer Concentrate (contains ProClin 300), Stop Solution (contains Sulfuric acid), Substrate, Substrate Diluent (contains <0.1% Sodium azide), Amplifier, Amplifier Diluent (contains <0.1% Sodium azide).
- **GHS product identifier:** Human TNF-alpha Quantikine HS ELISA
- **Application of the substance / the preparation:** For Research Use Only
- **Manufacturer/Supplier:**
  R&D Systems Inc.
  614 McKinley Place N.E.
  Minneapolis, MN 55413
  USA
  1-800-343-7475
- **For product related questions call:** 1-800-343-7475. In Europe call: +44(0)1235-529449.
- **Emergency information:** In case of a chemical emergency, spill, leak, fire, or accident call **CHEMTREC** at 1-800-424-9300 (US or Canada). Outside USA and Canada: +1 703-527-3887 (collect calls accepted).

2. Hazards Identification:

- **Classification: Regulation (EC) No. 1272/2008 [CLP/GHS]**: **Sodium Azide**
  Acute Tox. 2, Oral
  Aquatic Acute 1
  Aquatic Chronic 1

- **Signal Word:** DANGER
- **Hazard Statement(s):** H300: Fatal if swallowed. H410 Harmful to aquatic life with long lasting effects.
- **Precautionary Statement(s):** P264: Wash hands thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P273: Avoid release to the environment.
- **Response:**
  IF SWALLOWED: Immediately call a POISON CONTROL Center or physician. See specific treatment in this SDS. Rinse mouth.
  IF ON SKIN: Remove immediately all contaminated clothing. Wash contaminated clothing before reuse. Call a POISON CONTROL center or physician.
  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CONTROL center or physician.
  COLLECT SPILLAGE.
- **Classification according to Directive 67/548/EEC:** T+: Very toxic. N: Dangerous for the environment.
- **R-phrases:** R28: Very toxic if swallowed. R32: Contact with acids liberates very toxic gas. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **S-phrases:** S1/2: Keep locked up and out of reach of children. S28: After contact with skin, wash immediately with plenty of water. S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). S60: This material and its container much be disposed of as hazardous waste. S61 Avoid release to the environment. Refer to special instructions/safety data sheet.
- **Other Hazards: Contact with acids liberates very toxic gas.**

3. Information on Ingredients:

Contains	EINECS	CAS No.	Content %
Sodium Azide	247-852-1	26628-22-8	0.1% to 0.5%

4. First Aid Measures:

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact**: Immediately wash with water and soap and rinse thoroughly. Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Rinse mouth with water. Immediately seek medical attention and appropriate follow-up.

5. Fire Fighting Measures:

- **Suitable extinguishing agents:** Any means suitable for extinguishing the surrounding area.
- **Specific hazards arising from the chemical:** Dangerous decomposition is not anticipated.
- **Protective equipment:** Wear appropriate protective clothing and a self-contained breathing apparatus if necessary.

6. Accidental Release Measures:

- **Person-related safety precautions:** Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
- **Measures for environmental protection:** Prevent further spillage or leakage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- **Measures for containment and cleaning:** Absorb liquid components with inert liquid-binding material. Pick up mechanically. Dispose contaminated material as waste according to item 13.

7. Handling and Storage:

- **Precautions for safe handling:** Store in a well ventilated place. Keep container tightly closed.
- **Information about protection against explosions and fires:** Normal measures for preventive fire protection.
- **Conditions for safe storage:** Keep locked up. Store in a cool place. Keep container tightly closed in a dry and well ventilated place.

8. Exposure Controls and Personal Protection:

- **Components: Sodium Azide**
  UK. EH40 WEL- Workplace Exposure Limits: Value: STEL 0.3 mg/m^3 (15 min.). TWA 0.1 mg/m^3; UK.

- **Appropriate engineering controls:** Follow usual standard laboratory practices. The following personal protection is recommended:

Respiratory Protection:	Respiratory Protection not required. For nuisance exposures use respirators and components approved under appropriate government standards.
Hand Protection:	Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Eye Protection:	Use equipment for eye protection tested and approved under appropriate government standards.
Skin and Body Protection:	Use impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hygiene Measures:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

9. Physical and Chemical Properties:

- **Appearance:** Lyophilized white powder or clear liquid.
- **Odor:** Little to none
- **Odor threshold:** Not available
- **pH:** Not available
- **Melting point/freezing point:** Not available.
- **Boiling point/Boiling range:** Not available.
- **Flash point:** Not available.
- **Evaporation rate:** Undetermined.
- **Flammability:** Not available.

Upper/lower flammability or explosive limits: Not available.
Vapor pressure/density: Not available.
Relative Density: Not available.
Solubility in/Miscibility with Water: Not available.
Partition coefficient: noctanol/water: Not available
Auto igniting: Product is not self igniting.
Decomposition temperature: Not available.
Viscosity: Not available.

10. Stability and Reactivity:

- **Reactivity:** Sodium Azide can form explosive compounds with heavy metals which, with repeated contact with lead and copper commonly found in plumbing drains may result in the buildup of shock sensitive compounds.

- **Chemical Stability:** Stable under normal ambient and storage and handling temperatures.
- **Thermal:** decomposition/conditions to be avoided: No decomposition if used according to specifications.
- **Incompatible materials to be avoided:** Metals and metallic compounds.
- **Hazardous decomposition products:** Hazardous decompositions formed under fire conditions. No dangerous decomposition products known.

11. Toxicological Information:

- **Acute toxicity:** **Oral LD50 Oral:** 27 mg/kg (mouse and rat); **Inhalation LD50**: 32 mg/m3 (mouse) and 37 mg/m3 (rat); **Skin LD50:** 20 mg/kg (rabbit) and 50 mg/kg (rat)
- **Skin corrosion / irritation:** May be harmful if absorbed through the skin. May cause skin irritation.
- **Serious eye damage / irritation:** May cause eye irritation.
- **Respiratory or skin sensitization:** No sensitizing effects known.
- **Germ cell mutagenicity:** No effect known.
- **Carcinogenicity:** No effect known.
- **Reproductive toxicity:** No toxic effect known.
- **STOT-single exposure:** Data not available
- **STOT-repeated exposure:** Data not available.
- **Aspiration hazard:** May be harmful if inhaled. May cause respiratory tract irritation.
- Additional Information: RTECS: Not available

12. Ecological Information:

- **Ecotoxicity:** Harmful to aquatic life. LC50, 96 Hrs, Fish Lepomis macrochirus - 0.68 mg/L; EC50, 48 Hrs, Daphnia pulex - 4.2 mg/L
- **Persistence and degradability:** No data available
- **Bioaccumulative potential:** No data available
- **Mobility in soil:** Sodium azide is soluble in water.
- **Other adverse effects:** Sodium azide is toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment.

13. Disposal Considerations:

- **Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Contaminated packaging:** Dispose in the same manner as unused product.
- **Special precautions:** Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilt material to soil, waterways, drains and sewers.

14. Transport Information:

- **ADR/RID ADN/ADNR IMDG IATA/DOT**

ADR/DOT/:	**UN Number:**	UN3082
RID	**Proper Shipping Name:**	Environmentally hazardous substance, liquid, n.o.s. (Sodium Azide)
	Hazard class:	9
	Packing group:	III
IATA:	**UN Number:**	UN3082
	Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s. (Sodium Azide)
	Hazard class:	9
	Packing group:	III
IMDG:	**UN Number:**	UN3082
	Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s. (Sodium Azide)
	Hazard class:	9
	Packing group:	III
	Marine Pollutant:	No

15. Regulations:

- **US Federal and State Regulations**
  TSCA (Toxic Substances Control Act): Sodium Azide is listed.
  SARA 313: Sodium Azide is listed.
  SARA 311/312 Hazards: Acute Health Hazard
  CERCLA Reportable Quantity: 1000 lbs.
  California Proposition 65: Sodium Azide is not listed on California's listing of known or potential carcinogens.

16. Other Information:

- **R-phrases:** R28: Very toxic if swallowed. R32: Contact with acids liberates very toxic gas. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **S-phrases:** S1/2: Keep locked up and out of reach of children. S28: After contact with skin, wash immediately with plenty of water. S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). S60: This material and its container much be disposed of as hazardous waste. S61 Avoid release to the environment. Refer to special instructions/safety data sheet.
- **Other Hazards: Contact with acids liberates very toxic gas.**

- **Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

2. Hazard Identification:

- **Classification: Regulation (EC) No. 1272/2008 [CLP/GHS]**
  Stop Solution contains Sulfuric Acid: Skin Irrit. Class 2
  Eye Irrit. Class 2

  Signal Word: WARNING
- **Hazard statements:** Causes skin irritation. Causes serious eye irritation.
- **Precautionary statements:** Wash hands thoroughly after handling. Wear protective gloves, clothing and eye and face protection.
  Response:
  IF ON SKIN (or hair): Immediately remove contaminated clothing and wash before re-use. Wash skin immediately with soap and water. Get medical attention if irritation persists after washing.
  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 attention.
  IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.
- **Classification according to Directive 67/548/EEC:** Irritating to eyes and skin.
- **Hazard Symbol / R-Phrase / S-Phrase:** Xi, Irritant / R36/38, Irritating to eyes and skin. / S26, In case of contact with eyes, rinse immediately with plenty of water and see medical advice.
- **Other hazards:** none

3. Information on Ingredients:

Description: Sulfuric Acid, Formula: H_2SO_4.

Contains	CAS No.	EC-No.	Index-No.	Content
Water	7732-18-5	231-791-2	NA	~90.2%
Sulfuric Acid	7664-93-9	231-639-5	016-020-00-8	~ 9.8%

4. First Aid Measures:

- IF IN EYES: Rinse thoroughly with water for at least 15 minutes and immediately consult a physician.

- IF ON SKIN (or hair): Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.
- IF INHALED: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately consult a physician.
- **Potential acute / delayed health effects:**
  Eye contact: Causes serious eye irritation / causes burns
  Skin contact: Causes skin irritation / causes burns
  Inhalation: Harmful if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
  Ingestion: Harmful if swallowed. Irritating to mouth, throat and stomach. / Causes burns
- **Notes to physician:** Consult a physician. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures:

- **Suitable extinguishing agents:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- **Hazards from the substance or mixture:** In case of fire, toxic and corrosive gases may be formed.
- **Special precautions for fire-fighters:** Self contained breathing apparatus and full protective clothing must we worn in case of fire.

6. Accidental Release Measures:

- **Person-related safety precautions:** Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
- **Measures for environmental protection**: Keep away from drains.
- **Measures for containment and cleaning:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. Handling and Storage:

- **Precautions for safe handling:** Avoid inhalation of vapour or mist. Use normal measures for preventive fire protection.
- **Conditions for safe storage:** Store in a cool, dry place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. Exposure Controls and Personal Protection:

- **Control parameters:** Contains no substances with occupational exposure limit values
- **Appropriate engineering controls:** Use with adequate ventilation including local extraction. Ensure that eyewash stations and safety showers are close to the workstation location.
- **Individual protection measures:** Wash hands thoroughly after handling chemical products and before eating, smoking or using the toilet. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
  Eye/face protection: Wear approved safety goggles.
  Skin/hand protection: Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
  Body protection: Wear suitable protective clothing as protection against splashing or contamination.
  Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.
  Respiratory protection: In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. Physical and Chemical Properties:

- **Appearance:** Colorless Liquid
- **Odor:** pungent
- **Odor threshold:** Not available

Upper/lower flammability or explosive limits: Not available
Vapor density : Not available
Vapor pressure: Not available

- **pH:** ~1
- **Melting point/freezing point:** Not available.
- **Boiling point/Boiling range:** Not available
- **Flash point:** Not available
- **Evaporation rate:** Not available
- **Flammability (solid, gas):** Not available

Relative density: Not available
Solubility in/Miscibility with Water: Soluble
Partition coefficient: noctanol/water: Not available
Auto igniting: Not available
Decomposition temperature: Not available
Viscosity: Not available

10. Stability and Reactivity:

- **Reactivity:** Contact with metals produces highly flammable hydrogen gas. Addition of water liberates excessive heat..
- **Chemical Stability:** Stable under recommended storage conditions.
- **Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.
- **Conditions to avoid:** Bases, Halides, Metals, Alkalis, Acetonitrile.
- **Incompatible materials:** Most metals, oxidizers, reducers, bases, metal carbonates, cyanides, sulphides, carbides, oxides, metal acetylides, hydrides, halogens, organic or combustible materials, percholorates, acetonitrile, permanganates, alcohols, picrates.
- **Hazardous decomposition products:** Products formed under fire conditions: Oxides of Sulphur, Hydrogen gas.

11. Toxicological Information:

- **Acute toxicity:** Can cause severe burns upon contact while the vapours or mist are corrosive and can cause severe irritation or damage to the nose, throat and lungs. Ingestion of this product causes pain, nausea and vomiting and may be fatal if large doses are ingested.
- **Skin corrosion/irritation:** Can cause severe burns
- **Serious eye damage/irritation:** Can cause severe burns
- **Respiratory or skin sensitization:** No data available
- **Germ cell mutagenicity:** No data available
- **Carcinogenicity:** No data available
- **Reproductive toxicity:** No data available
- **Specific target organ toxicity (STOT) -single exposure:** No data available
- **Specific target organ toxicity (STOT) -repeated exposure:** No data available
- **Aspiration hazard:** Can cause severe burns
- **Information on likely routes of exposure:** Routes of entry anticipated; oral, dermal, inhalation.
- **Symptoms related to the physical, chemical and toxicological characteristics:**
  Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
  Ingestion: May be harmful if swallowed. Causes burns.
  Skin contact: May be harmful if absorbed through skin. Causes burns.
  Eye contact: Causes eye burns.
- **Delayed and immediate effects and also chronic effects from short and long term exposure:**
  Short term exposure: Potential immediate effects: Not available. **Potential delayed effects:** Not available.
  Long term exposure: Potential immediate effects: Not available. **Potential delayed effects:** Not available.
- **Effects of chronic exposure:** Repeated skin contact with this product may lead to dermatitis while repeated inhalation may cause bronchitis, conjunctivitis, respiratory infections, emphysema and digestive disturbances. May cause erosion and discoloration of the teeth.
- **Numerical measures of toxicity:** Not available
- **Other Information:** NA

12. Ecological Information:

- **Ecotoxicity:** This product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.
- **Biodegradability:** No data available.
- **Bioaccumulative potential:** No data available.
- **Mobility in soil:** No data available.
- **Other adverse effects:** No data available.

13. Disposal Considerations:

- **Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Contaminated packaging:** Dispose in the same manner as unused product.
- **Special precautions:** Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilt material to soil, waterways, drains and sewers.

14. Transport Information:

- **ADR/RID ADN/ADNR IMDG IATA/DOT**

ADR/DOT/:	**UN Number:**	UN 2796
RID	**Proper Shipping Name:**	Sulphuric Acid
	Hazard class:	8
	Packing group:	II
IATA:	**UN Number:**	UN 2796
	Proper Shipping Name:	Sulphuric Acid
	Hazard class:	8
	Packing group:	II
IMDG:	**UN Number:**	UN 2796
	Proper Shipping Name:	Sulphuric Acid
	Hazard class:	8
	Packing group:	II
	EmS Number:	F-A, S-B
	Marine Pollutant:	No

15. Regulations:

- **US Federal and State Regulations**

  Toxic Substances Control Act: On TSCA Inventory
  SARA 313 Components: Not listed
  SARA 311/312 Hazards: Acute Health Hazard
  CERCLA Reportable Quantity: 1,000 lbs
  California Proposition 65: Not listed.

16. Other Information:

- **Risk Phrases:** R36/38, Irritating to eyes and skin.
- **Safety Phrases:** S26, In case of contact with eyes, rinse immediately with plenty of water and see medical advice.

- **Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

2. Hazards Identification:

- **Classification: Sodium Azide <0.1%**. Not hazardous at this concentration. The classification was made according to the latest edition of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).
- **Special Hazards:** N/A
- **Routes of exposure:** Inhalation; ingestion or skin.

  IF EXPOSED OR CONCERNED: Get medical advice/attention.

3. Information on Ingredients:

Contains	EINECS	CAS No.	Content %	Classification
Sodium Azide	247-852-1	26628-22-8	<0.1%	Not hazardous at this concentration

4. First Aid Measures:

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact**: Immediately wash with water and soap and rinse thoroughly. Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Rinse mouth with water. Seek medical attention and appropriate follow-up.

5. Fire Fighting Measures:

- **Suitable extinguishing agents:** The product is non-flammable.
- **Protective equipment:** No special measures required.

6. Accidental Release Measures:

- **Person-related safety precautions:** Use standard laboratory practices including proper personal protective equipment.
- **Measures for environmental protection:** N/A.
- **Measures for containment and cleaning:**
  -Absorb liquid components with liquid-binding material.
  -Pick up mechanically.
  -Dispose contaminated material as waste according to item 13.
- **Additional information:** No dangerous substances are released.

7. Handling and Storage:

- **Precautions for safe handling:** No special measures required. No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage:** Store according to product specifications.

8. Exposure Controls and Personal Protection:

- **Control parameters:** None known.
- **Appropriate engineering controls:** Follow usual standard laboratory practices. The following personal protection is recommended:
  -Gloves made of latex, nitrile rubber, e.g.
  -Safety glasses
  -Protective work clothing.

9. Physical and Chemical Properties:

- **Appearance:** Lyophilized white powder or clear liquid.
- **Odor:** Little to none
- **Odor threshold:** Not available
- **pH:** Not available
- **Melting point/freezing point:** Not available.
- **Boiling point/Boiling range:** Not available.
- **Flash point:** Not available.
- **Evaporation rate:** Undetermined.
- **Flammability:** Not available.

Upper/lower flammability or explosive limits: Not available.
Vapor pressure/density: Not available.
Relative Density: Not available.
Solubility in/Miscibility with Water: Not available.
Partition coefficient: noctanol/water: Not available
Auto igniting: Product is not self igniting.
Decomposition temperature: Not available.
Viscosity: Not available.

10. Stability and Reactivity:

- **Reactivity:** This product contains low concentrations of Sodium Azide <0.1% (w/w). Sodium Azide can form explosive compounds with heavy metals which, with repeated contact with lead and copper commonly found in plumbing drains may result in the buildup of shock sensitive compounds.
- **Chemical Stability:** Stable under normal ambient and storage and handling temperatures.
- **Thermal** decomposition/conditions to be avoided: No decomposition if used according to specifications.
- **Incompatible materials to be avoided:** Metals and metallic compounds.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11. Toxicological Information:

- **Acute toxicity:** No toxic effect known.
- **Skin irritant effect:** No irritant effect known.
- **Eye irritant effect:** No irritant effect known.
- **Sensitization:** No sensitizing effects known.
- **Mutagenicity:** No effect known.
- **Carcinogenicity:** No effect known.
- **Reproductive toxicity:** No toxic effect known.
- **Additional toxicological information:** When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12. Ecological Information:

- **Ecotoxicity:** Undetermined.
- **Biodegradability:** Undetermined.
- **Mobility:** Undetermined.

13. Disposal Considerations:

- **Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Contaminated packaging:** Dispose in the same manner as unused product.
- **Special precautions:** Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilt material to soil, waterways, drains and sewers.

14. Transport Information:

- **UN Number:** None
- **DOT regulations: ·Hazard class:** None
- **Land transport ADR/RID (cross-border):** Not regulated.
- **Maritime transport IMDG**: Not regulated.
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:** Not regulated.
- **Transport/Additional information:** Not dangerous according to the above specifications.

15. Regulations:

- **US Federal and State Regulations**

  TSCA (Toxic Substances Control Act): Sodium Azide is listed.
  SARA 313: Sodium Azide is listed.
  SARA 311/312 Hazards: Acute Health Hazard
  CERCLA Reportable Quantity: 1000 lbs.
  California Proposition 65: Sodium Azide is not listed on California's listing of known or potential carcinogens.

16. Other Information:

- **Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

2. Hazard Identification:

- **Classification: Regulation (EC) No. 1272/2008 [CLP/GHS]**
  Some components indicated above contain ProClin 300: Skin Sens. 1; H317 – May cause an allergic skin reaction.

- **Signal Word:** WARNING
- **Precautionary statements:**
  P261: Avoid breathing mist.
  P272: Contaminated work clothing should not be allowed out of the workplace.
  P280: Wear protective gloves.
  Response:
  IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: get medical attention. Wash contaminated clothing before reuse.

- **Classification according to Directive 67/548/EEC:** The product is classified as a skin sensitizer according to Directive 1999/45/EC and its amendments.
- **Hazard Symbol / R-Phrase / S-Phrase:** R43: May cause sensitization by skin contact.
- **Other hazards:** none

3. Information on Ingredients:

Description: ProClin 300

Contains	CAS No.	EC-No.	Index-No.	Content
Modified Alkyl Carboxylate	-	-	-	<0.01%
Mixture of 5-Chloro-2-Methyl-4-Isothiazolin-3-One (26172-55-4) and 2-Methyl-4-Isothiazolin-3-One (2682-20-4)	55965-84-9	-	613-167-00-5	<0.01%
Modified Glycol	-	-	-	≤1.6%

4. First Aid Measures:

- IF IN EYES: Rinse thoroughly with water for at least 15 minutes and immediately consult a physician.
- IF ON SKIN (or hair): Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.
- IF INHALED: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately consult a physician.

5. Fire Fighting Measures:

- **Suitable extinguishing agents:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- **Special precautions for fire-fighters:** Self contained breathing apparatus and full protective clothing must we worn in case of fire.

6. Accidental Release Measures:

- **Person-related safety precautions:** Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
- **Measures for environmental protection**: Keep away from drains.
- **Measures for containment and cleaning:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. Handling and Storage:

- **Precautions for safe handling:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use normal measures for preventive fire protection.
- **Conditions for safe storage:** Store in a cool, dry place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. Exposure Controls and Personal Protection:

- **Control parameters:** Contains no substances with occupational exposure limit values.
- **Individual protection measures:** Wash hands thoroughly after handling chemical products and before eating, smoking or using the toilet. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

  Eye/face protection: Wear approved safety goggles.
  Skin/hand protection: Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
  Body protection: Wear suitable protective clothing as protection against splashing or contamination.
  Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.
  Respiratory protection: In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. Physical and Chemical Properties:

- **Appearance:** Clear Liquid
- **Odor:** Not available
- **Odor threshold:** Not available
- **pH:** Not available
- **Melting point/freezing point:** -40º C
- **Boiling point/Boiling range:** 189º C
- **Flash point:** 118º C – closed cup
- **Evaporation rate:** Not available
- **Flammability (solid, gas):** Not available

Upper/lower flammability or explosive limits: Not available
Vapor density : Not available
Vapor pressure: Not available
Relative density: 1.03 g/cm^3
Solubility in/Miscibility with Water: Soluble
Partition coefficient: noctanol/water: Not available
Auto igniting: Not available
Decomposition temperature: Not available
Viscosity: Not available

10. Stability and Reactivity:

- **Chemical Stability:** Stable under recommended storage conditions.
- **Conditions to avoid:** Strong oxidizing agents, reducing agents, Amines, Mercaptans
- **Hazardous decomposition products:** Hazardous decomposition products formed under fire conditions – Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas.

11. Toxicological Information:

- **Acute toxicity:** LD50 Oral – rat – 862 mg/kg
  LD50 Dermal – rabbit- 2800 mg/kg
- **Skin corrosion/irritation:** Can cause severe burns. Skin – rabbit – Corrosive

- **Serious eye damage/irritation:** Rabbit – Corrosive to eyes
- **Respiratory or skin sensitization:** May cause allergic skin reaction.
- **Germ cell mutagenicity:** No data available
- **Carcinogenicity:** No data available
- **Reproductive toxicity:** No data available
- **Specific target organ toxicity (STOT) -single exposure:** No data available
- **Specific target organ toxicity (STOT) -repeated exposure:** No data available
- **Aspiration hazard:** Can cause severe burns.
- **Information on likely routes of exposure:** Routes of entry anticipated; oral, dermal, inhalation.
- **Symptoms related to the physical, chemical and toxicological characteristics:**
  Inhalation: Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
  Ingestion: Harmful if swallowed. Causes burns.
  Skin contact: Harmful if absorbed through skin. Causes burns.
  Eye contact: Causes eye burns.
- **Delayed and immediate effects and also chronic effects from short and long term exposure:**
  Short term exposure: Potential immediate effects: Not available. **Potential delayed effects:** Not available.
  Long term exposure: Potential immediate effects: Not available. **Potential delayed effects:** Allergic contact dermatitis.
- **Effects of chronic exposure:** ProClin 300 at levels greater than or equal to 0.1% is not identified as probable, possible or a confirmed human carcinogen by IARC.
- **Numerical measures of toxicity:** Not available
- **Other Information:** NA

12. Ecological Information:

- **Ecotoxicity:** No data available
- **Biodegradability:** No data available.
- **Bioaccumulative potential:** No data available.
- **Mobility in soil:** No data available.
- **Other adverse effects:** Toxic to aquatic organisms.

13. Disposal Considerations:

- **Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Contaminated packaging:** Dispose in the same manner as unused product.
- **Special precautions:** Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilled material to soil, waterways, drains and sewers.

14. Transport Information:

- **UN Number:** None
- **DOT regulations: Hazard class:** None
- **Land transport ADR/RID (cross-border):** Not regulated.
- **Maritime transport IMDG**: Not regulated.
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:** Not regulated.
- **Transport/Additional information:** Not dangerous according to the above specifications.

15. Regulations:

- **US Federal and State Regulations**
  TSCA (Toxic Substances Control Act): On TSCA Inventory
  SARA 313 Components: Not listed
  SARA 311/312 Hazards: Acute Health Hazard
  CERCLA Reportable Quantity: Not listed

California Proposition 65: Not listed.

16. Other Information:

- **Hazard Symbol / R-Phrase / S-Phrase:** R43 May cause sensitization by skin contact.
- **Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.