

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law Issue date: 8/2/2023 Revision date: 10/26/2023 Version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking **1.1. Product identifier** Product form : Mixture Product name ZipChip Native Antibodies Diluent · 1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2.1. Relevant identified uses : Professional use Main use category : For research and development use only. Use of the substance/mixture Function or use category : Laboratory chemicals 1.2.2. Uses advised against Restrictions on use : Not for use in diagnostic procedures. 1.3. Details of the supplier of the safety data sheet Manufacturer 908 Devices 645 Summer St 02210 Boston, MA USA T 1 (857) 254 - 1500 908devices.com 1.4. Emergency telephone number Emergency number : 1 (844) 908 - 4357 **SECTION 2: Hazards identification** 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Flam. Liq. 3 H226 Full text of hazard classes, H- and EUH-statements: see section 16 Adverse physicochemical, human health and environmental effects No additional information available 2.2. Label elements Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms (CLP) GHS02 Signal word (CLP) : Warning Hazard statements (CLP) : H226 - Flammable liquid and vapour. Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smokina. P233 - Keep container tightly closed. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . P403+P235 - Store in a well-ventilated place. Keep cool. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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Unknown acute toxicity (CLP) - SDS	: 2% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
	2% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
	2% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))
Unknown hazards to the aquatic environment (CLF	P) : Contains 2 % of components with unknown hazards to the aquatic environment

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Isopropyl alcohol	CAS-No.: 67-63-0	< 8	Flam. Liq. 2, H225
substance with national workplace exposure limit(s)	EC-No.: 200-661-7		Eye Irrit. 2, H319
(GB)	EC Index-No.: 603-117-00-0		STOT SE 3, H336

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	: If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash clothing before re-using. Get medical attention if irritation develops and persists.
First-aid measures after eye contact	: 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.
First-aid measures after ingestion	: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.
4.2. Most important symptoms and effe	ects, both acute and delayed
Symptoms/effects after inhalation Symptoms/effects after skin contact Symptoms/effects after eye contact Symptoms/effects after ingestion	 May cause irritation to the respiratory tract. May cause skin irritation. Repeated exposure may cause skin dryness or cracking. May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
4.3. Indication of any immediate medic	al attention and special treatment needed

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media Unsuitable extinguishing media	 Water spray. Dry chemical. Alcohol foam. Carbon dioxide (CO2). Do not use a solid water stream as it may scatter and spread fire.

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5.2. Special hazards arising from the substance or mixture	
Fire hazard	: Flammable liquid and vapour. Products of combustion may include, and are not limited to: oxides of carbon.
Explosion hazard	: May form flammable/explosive vapour-air mixture. Heavier than air, vapours may travel long distances along ground, ignite and flash back to source.
5.3. Advice for firefighters	
Firefighting instructions	: Move containers away from the fire area if this can be done without risk. Cool closed containers exposed to fire with water spray. Prevent runoff from entering water courses, sewers and basements.
Protection during firefighting	: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures		
6.1. Personal precautions, protective equipment and emergency procedures		
General measures :	Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges. Remove all sources of ignition.	
6.1.1. For non-emergency personnel		
No additional information available		
6.1.2. For emergency responders		
No additional information available		
6.2. Environmental precautions		
Prevent entry to sewers and public waters.		
6.3. Methods and material for containment an	nd cleaning up	
For containment :	Stop leak if safe to do so. Remove ignition sources. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.	
Methods for cleaning up :	Sweep or shovel spills into appropriate container for disposal. Provide ventilation.	
6.4. Reference to other sections		
For further information refer to section 8: "Exposure co	ntrols/personal protection".	

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Additional hazards when processed Precautions for safe handling	 Handle empty containers with care because residual vapours are flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Take precautionary measures against static discharge. Use only non-sparking tools.
Hygiene measures 7.2. Conditions for safe storage, including a	: Take off immediately all contaminated clothing and wash it before reuse. Always wash hands after handling the product.
Technical measures Storage conditions	 Proper grounding procedures to avoid static electricity should be followed. Keep out of the reach of children. Keep container tightly closed. Do not store in unlabelled containers. Store in dry, well-ventilated area. Keep cool. Keep out of direct sunlight. Containers which are opened should be properly resealed and kept upright to prevent leakage. Protect from physical damage Protect from freezing.

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7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Isopropyl alcohol (67-63-0)	
United Kingdom - Occupational Exposure Limits	
Local name	Propan-2-ol
WEL TWA (OEL TWA) [1]	999 mg/m³
WEL TWA (OEL TWA) [2]	400 ppm
WEL STEL (OEL STEL)	1250 mg/m ³
WEL STEL (OEL STEL) [ppm]	500 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	Consult the relevant monitoring standards for the region.

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Safety eyewear complying with an approved standard such as the European Standard EN166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

8.2.2.2. Skin protection

Skin and body protection:

Chemical resistant apron. Flame retardant and anti-static material recommended.

Hand protection:

Chemical resistant gloves (according to European standard NF ISO 374-1 or equivalent)

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

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8.2.2.4. Thermal hazards

Thermal hazard protection:

Not required for normal conditions of use.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Colorless liquid.
Colour	: Colourless liquid.
Odour	: No data available
Odour threshold	: No data available
рН	: 5.2 – 5.8
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 0 °C (32°F)
Freezing point	: No data available
Boiling point	: 90 – 100 °C (194°-212°F)
Flash point	: > 29 °C (84°F)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable liquid and vapour.
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: 0.99
Solubility	: Miscible.
Partition coefficient n-octanol/water	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use. Contact with metals produces hydrogen gas which may form explosive mixtures with air.

10.2. Chemical stability

Stable under normal conditions. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Sparks. Open flame. Incompatible materials. Sources of ignition. Direct sunlight.

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10.5. Incompatible materials

Strong oxidizing agents. Nitrates. Perchlorates. Sulfuric acid. Aluminium. This material may attack some forms of plastics, rubbers and coatings.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. May release flammable gases.

SECTION 11: Toxicological inform	nation
11.1 Information on toxicological effe	ects
Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation) Additional information	 Not classified. Not classified. Not classified. Not classified. Based on available data, the classification criteria are not met.
Isopropyl alcohol (67-63-0)	
LD50 oral rat	5840 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	4059 mg/kg
LC50 inhalation rat	> 10000 ppm (Exposure time: 6 h)
Unknown acute toxicity (CLP) - SDS	 2% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 2% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 2% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))
Skin corrosion/irritation	: Not classified. pH: 5.2 – 5.8
Additional information	: Based on available data, the classification criteria are not met.
Serious eye damage/irritation	: Not classified. pH: 5.2 – 5.8
Additional information	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Not classified.
Additional information	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Not classified.
Additional information	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Not classified.
Additional information	: Based on available data, the classification criteria are not met.
Isopropyl alcohol (67-63-0)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified.
Additional information	: Based on available data, the classification criteria are not met.
STOT-single exposure	: Not classified.
Additional information	: Based on available data, the classification criteria are not met.
Isopropyl alcohol (67-63-0)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified.
Additional information	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Not classified.
Additional information	: Based on available data, the classification criteria are not met.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

: May cause long-term adverse effects in the aquatic environment.

Unknown hazards to the aquatic environment (CLP) : Contains 2 % of components with unknown hazards to the aquatic environment

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Hazardous to the aquatic environment, short-term (acute)	: Not classified.
Hazardous to the aquatic environment, long-term (chronic)	: Not classified.
Isopropyl alcohol (67-63-0)	
LC50 - Fish [1]	10000 mg/l Test organisms (species): Pimephales promelas
LC50 - Fish [2]	9640 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	> 1000 mg/l (Species: Desmodesmus subspicatus)
EC50 96h - Algae [1]	> 1000 mg/l (Species: Desmodesmus subspicatus)
12.2. Persistence and degradability	
ZipChip Native Antibodies Diluent	
Persistence and degradability	Not established.
12.3. Bioaccumulative potential	
ZipChip Native Antibodies Diluent	
Bioaccumulative potential	Not established.
Isopropyl alcohol (67-63-0)	
Partition coefficient n-octanol/water	0.05 (at 25 °C)
12.4. Mobility in soil	
No additional information available	
12.5. Results of PBT and vPvB assessment	
PBT	: No
vPvB	: No
ZipChip Native Antibodies Diluent	
This substance/mixture does not meet the PBT crite	
This substance/mixture does not meet the vPvB crite	ana of REACH regulation, annex XIII
12.6. Other adverse effects	
Additional information	: No other effects known
SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Product/Packaging disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. The generation of waste should be avoided or minimized wherever possible.
Additional information	: Handle empty containers with care because residual vapours are flammable.
SECTION 14: Transport information	
In accordance with ADR / IMDG / IATA	

In accordance with ADR / IMDG / IATA

14.1 UN number

UN-No. (ADR)

: UN 1993

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UN-No. (IMDG) UN-No. (IATA)	: UN 1993 : UN 1993	
14.2. UN proper shipping name		
Proper Shipping Name (ADR) Proper Shipping Name (IMDG) Proper Shipping Name (IATA)	 FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL) FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL) Flammable liquid, n.o.s. (Isopropyl Alcohol) 	
14.3. Transport hazard class(es)		
ADR Transport hazard class(es) (ADR) Danger labels (ADR)		
IMDG Transport hazard class(es) (IMDG) Danger labels (IMDG)		
IATA Transport hazard class(es) (IATA) Danger labels (IATA)		
14.4. Packing group		
Packing group (ADR) Packing group (IMDG) Packing group (IATA)	: III : III : III	
14.5. Environmental hazards		
Dangerous for the environment Marine pollutant Other information	 No No No supplementary information available. 	
14.6. Special precautions for user		
Special transport precautions	: Do not handle until all safety precautions have been read and understood.	
Overland transport Limited quantities (ADR)	: 51	
Transport by sea Limited quantities (IMDG)	: 5L	
Air transport PCA limited quantity max net quantity (IATA) PCA max net quantity (IATA)	: 10L : 60L	

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14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no REACH candidate substance.

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

United Kingdom

British National Regulations

: Not determined.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes	ation of changes			
Section	Changed item	Change	Comments	
14	Transport information	Modified	V1.1	
SDS	Name	Modified	V1.1	

Abbreviations and acronyms:

°C – Degrees Celsius

°F – Degrees Fahrenheit

ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road.

ACGIH – American Conference of Governmental Industrial Hygienists

ATE – Acute Toxicity Estimate

BCF - Bioconcentration Factor

BEI – Biological Exposure Index

CAS – Chemical Abstracts Service

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Abbreviations and acronyms:

1	
	CLP – Regulation (EC) No 1272/2008 on the Classification, Labeling and Packaging of substances and mixtures.
	CMR – Carcinogen, Mutagen, Reproductive toxin
	cP – centipoise (unit of dynamic viscosity)
	cSt – centistokes (unit of kinematic viscosity)
	DNEL – Derived No-effect Level
	DMEL – Derived Minimal Effect Level
	EC50 – Half maximal effective concentration
	ECHA – European Chemicals Agency
	EC-No. – European Community number
	EU – European Union
	GHS – Globally Harmonized System of Classification and Labelling of Chemicals
	h – Hours
	IATA – International Air Transport Association
	IC50 – Inhibition concentration
	IDLH – Immediately Dangerous to Life or Health
	IMDG – International Maritime Dangerous Goods
	IOELV – Indicative Occupational Exposure Limit Value
	KIFS – Swedish Chemicals Agency's (Keml's) Code of Statutes
	kPa – kilopascal
	Koc – Adsorption Coefficient
	Kow – Octanol-Water Partition Coefficient
	LC50 – Median Lethal Concentration
	LD50 – Median Lethal Dose
	LOAEL – Lowest Observed Adverse Effect level
	mg/l – Milligram per liter
	mg/kg – Milligram per kilogram
	mg/m3 – Milligram per cubic meter
	Min – Minutes
	NIOSH – National Institute for Occupational Safety and Health
	NOEC – No Observed Effect Concentration
	NO(A)EL – No Observed (Adverse) Effect Level
	N.O.S. – Not Otherwise Specified
	OEL – Occupational Exposure Limit
	PBT - Persistent, Bioaccumulative and Toxic
	PCN – Poison Centre Notification
	PNEC – Predicted No Effect Concentration
	ppm – Parts per million
	PVC – Polyvinyl chloride
	REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
	RID – European Agreement concerning the International Carriage of Dangerous Goods by Rail
	SDS – Safety Data Sheet
	STEL – Short Term Exposure Limit
	STOT – Specific Target Organ Toxicity
	SVHC – Substance of Very High Concern (CMR, vPvB, PBT)
	TDI – Tolerable Daily Intake
	TLV – Threshold Limit Value
	TWA – Time Weighted Average
	UFI – Unique Formulation Identifier
	UN – United Nations
	vPvB - Very Persistent and Very Bioaccumulative
	WEL – Workplace Exposure Limit
	WGK – Wassergefahrdungklasse – German water quality classification
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Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE
	COUNCIL of 16 December 2008 on classification, labelling and packaging of substances
	and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and
	amending Regulation (EC) No 1907/2006.
Other information	: None.
Prepared by	: Nexreg Compliance Inc. www.Nexreg.com NEXREG

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Full text of H- and EUH-statements:		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Flam. Liq. 2	Flammable liquids, Category 2	
Flam. Liq. 3	Flammable liquids, Category 3	
H225	Highly flammable liquid and vapour.	
H226	Flammable liquid and vapour.	
H319	Causes serious eye irritation.	
H336	May cause drowsiness or dizziness.	
STOT SE 3	DT SE 3 Specific target organ toxicity – Single exposure, Category 3, Narcosis	

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008		ne classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:
Flam. Liq. 3	H226	On basis of test data

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